

## INSIDE DOPE

by GEORGE F. TAUBENECK

Stories of the Week  
Worst Story of the Week  
Add Iron Curtain Stories  
Gags of the Week  
Philosophy of the Week  
Will Bafflegab Survive  
Under Eisenhower?  
Help! Help! Help!

### Stories of the Week

In a Detroit night-club a fuse blew out — incapacitating the musicians' electronic equipment.

"Is there an electrician in the house?" pled the band leader.

He was swamped with unexpected talent. Sam Sofferin's Indian Room was playing host, that night, to officers and committee chairmen of Electricians Union No. 45.

An old gardener, engaged in breaking apart and re-setting rhubarb crowns, looked up as a lissome little girl approached.

"How's your baby brother?" he greeted.

Tears sprang, for Mary was painfully jealous of the new baby. That old gardener talked on as though he hadn't noticed her discomfiture.

"Suppose your Mom and Dad are mighty busy with him now. Might even seem as though they'd be too busy to love you as much as they did. But love is like rhubarb. If it's divided, there's more of it. I love my mother a lot. But I met a pretty girl, and married her. We had a baby pretty soon, and then another one came along. Loving the new one didn't take a mite away from the old. Love is like rhubarb; when it's divided, it grows. The more you give out, the more love you'll get in return."

Little Susan's mother had caught a cold. She resorted to an old-fashioned remedy—a glass of hot whiskey and water.

A bit later Susan went to bed. When her mother came to kiss her goodnight, the child snifled.

"You've been using Daddy's perfume," she solemnly.—*Dixie Roto Magazine.*

### Worst Story of the Week

"I'm working Saturdays and Sundays as a trimmer in a candle factory."

"Don't you work at anything Monday, Tuesday, Wednesday, Thursday, and Friday?"

"Nope. Only work on wick ends."

### Add Iron Curtain Stories

To a Hungarian clinic went an elder citizen of Budapest, a fellow who was fed up with Communist propaganda.

"Please check up on my eyes and ears," he requested.

"Both?"

"Yah. I can't seem to see what I hear any more."

"How's everything with you?" queried an American soldier stationed at the East-West line in Germany.

"Can't complain about anything," responded his Russian counterpart.

"Bet your life you can't," agreed the American.

### Gags of the Week

"The new bathing suits are like a crime without clues—a guy doesn't know where to begin to look."—*Ford Times.*

A porcupine gets no petting.—*Good Business.*

### Philosophy of the Week

"The severest moralists are those who never have been tempted."—G. MOORE.

"Civil servants tend easily to think that Members of Parliament or Congress are an ignorant impediment to their labours."—HAROLD J. LASKI, *Fabian Tract No. 235.*

"It is an old story that wisdom in conduct is not learnt from books or technical study, but from experience and character. We know what we

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# AIR CONDITIONING & REFRIGERATION News

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## Home Builder Who Made Own Cooling Units Tells Lehigh Conference They Cost Too Much Refrigeration Firms To Display At Restaurant Show

BETHLEHEM, Pa. — Nearly 200 persons representing almost every group interested in year-round residential air conditioning attended a two-day technical conference on the subject sponsored by Lehigh university's Department of Mechanical Engineering here recently.

(Detailed reports of discussions and talks at the conference will appear in future issues of AIR CONDITIONING & REFRIGERATION NEWS.)

That there are problems was recognized by all the participants, but it was the home builders who sounded a note of urgency in seeking a quick solution.

The home builder wants residential air conditioning to be "(1) sellable, (2) installed easily without interfering with other trades, and (3) cheap," also emphasized N. A. Cole, Austin, Tex. builder who represented the National Association of Home Builders.

### Seattle Meeting Gets Good Crowd Of Servicemen

SEATTLE—The enthusiastic support from the refrigeration and air conditioning industry of the Pacific Northwest made the 11th Refrigeration and Air Conditioning Educational Exhibit and Conference held here April 24-26 a marked success.

Over 50 manufacturers were represented with displays at the Educational Exhibit and the conference educational meetings were packed with informative service and installation information. Attendance at the educational meetings was extremely good with standing room only at most sessions.

The Seattle conference and exhibit, sponsored jointly by Refrigeration Equipment Manufacturers Association and Refrigeration Service Engineers Society, was the last of a series held in the off years. The next show activity will be the All-Industry Refrigeration and Air Conditioning Exposition to be held in Cleveland, November 9-12.

While attendance at the Seattle meeting was largely from the Washington-Oregon area, a large contingent from Vancouver, British Columbia.—*(Concluded on Page 27, Column 4)*

### U. S. Radiator Proposes To Absorb Drayer-Hanson

LOS ANGELES—If present plans for an exchange of stock are completed, Drayer-Hanson, Inc. here, air conditioning and commercial refrigeration manufacturer, will become a subsidiary of United States Radiator Corp., W. C. McCord, president of U. S. Radiator announced recently.

If the merger goes through, McCord declared, Drayer-Hanson will continue to operate under its present personnel and will distribute its products through U. S. Radiator's nationwide sales organization.

U. S. Radiator has petitioned the California commissioner of corporations to authorize an exchange of its unissued common capital stock for shares of Drayer-Hanson common stock on a basis of one share of U. S. Radiator for 6 1/4 shares of Drayer-Hanson.

The offer to exchange is conditioned on acceptance by not less than 80% of the outstanding Drayer-Hanson new common stock, McCord said.

"This step will mark United States

Although Cole took issue on several points with the air conditioning industry, he admitted he was not too successful in trying to build his own units:

"The trouble was I installed 20 of them. They've already cost me \$720 per ton."

In reviewing many years of research on heating and air conditioning at the University of Illinois, Prof. M. K. Fahnestock also told the conference that "the trend now is to maintain 75° year-round with the humidity 50% or under, regardless of outside temperature."

Current research projects of the American Society of Heating and Ventilating Engineers were outlined by R. S. Dill of the National Bureau of Standards, chairman of the ASHVE Research Committee.

Following a detailed discussion of factors in load calculations for resi-

*(Concluded on Page 4, Column 4)*

### Printing Machinery Firm Buys Kerotest, Will Produce Valves

PITTSBURGH, April 30 — The Miller Printing Machinery Co. of Pittsburgh today announced completion of arrangements for the purchase of Kerotest Mfg. Co., producer of valves and fittings.

An official statement from the Miller Co. said that operations would be continued at Kerotest along the same product lines as in the past. For the refrigeration industry Kerotest has produced valves, fittings, and various accessory items.

No drastic changes are considered as far as the present Kerotest organization is concerned, the Miller Co. statement declared, and former employees will be called back as soon as possible.

All Kerotest preferred and common stock has been acquired by the Miller Co., which means that Tube Turns, Inc. of Louisville, Ky. is relinquishing its holdings in Kerotest common stock which it purchased last fall.

R. B. Tullis, president of Miller, stated that Kerotest will be operated as a separate company with a few executives of the Miller company acting in an advisory capacity. One of the officers of Kerotest in the new setup will be W. G. Swaney, one of the founders of Kerotest.

In its statement reporting completion of plans for the purchase, Miller

### Airtemp Producing New Air-Cooled Residential Air Conditioning Unit

DAYTON—"What it calls the air conditioning industry's first residential air-cooled air conditioner is now in production at the Chrysler Airtemp plant here, C. E. Buchholzer, Airtemp president, revealed recently.

"The Chrysler Airtemp air-cooled residential air conditioner is the solution to problems of homeowners who would like to install air conditioning but may not do so because of local restrictions stemming from insufficient water supplies, high water costs, or inadequate drainage facilities," Buchholzer declared.

Two models of 2 and 3-hp. size air conditioners are being shipped from the Airtemp plant, Buchholzer said. They have been designed for installation in attics, utility rooms, in crawl

*(Concluded on Page 4, Column 2)*

CHICAGO—Some 400 firms, including a substantial number in the refrigeration industry, are set to exhibit in the 771-booth national restaurant exposition which opens May 11 at Navy Pier here.

Visitors will see what's being offered in new equipment, supplies, services, and foods in "the largest show ever staged for this business," according to Frank J. Wiffler, executive vice president of the National Restaurant Association, sponsor of the event.

The first day of the show, which will continue through May 15, has been set aside as "Dealer Day." There'll be a special preview of the exposition for jobbers and dealers who represent exhibiting firms and contact the restaurant market directly.

This year's show exceeds last year's by 100 booths, and both wings of the Navy Pier will be used to house exhibits. Heretofore, only the north wing has been used for exposition space.

As usual, a national restaurant convention will be held in conjunction with the exposition. General convention sessions will be conducted in the mornings in the auditorium at the

*(Concluded on Back Page, Column 2)*

### Shouse Succeeds Craig As Crosley Div. Head

CINCINNATI — John W. Craig, vice president of Avco Mfg. Corp. and general manager of the Crosley Div. since 1948, has resigned these positions and has been elected president and chief executive officer of Aluminum Industries, Inc.

Succeeding him at Crosley is James D. Shouse, one of Avco's senior vice presidents who has also been chairman of the Crosley Broadcasting Corp. He will now be chief executive officer of all Crosley Div. operations, including radio-television and appliance activities.

The announcement of these changes was made jointly by Victor Emanuel, board chairman and president of Avco, and Thomas E. Wood, board chairman of Aluminum Industries, Inc.

Shouse, who is also an Avco director and member of the executive

*(Concluded on Page 4, Column 1)*

### Bill Would End Excise On Ranges and Heaters

WASHINGTON, D. C.—A bill to end Federal excise taxes on electric, gas, and oil ranges and heaters is now pending before the Ways and Means Committee of the House of Representatives. The measure was introduced by Rep. Thomas B. Curtis (R. Mo.), a member of the committee.

Under the bill (H.R. 4843), Federal excise taxes would be repealed for "electric, gas, or oil water heaters" and for "electric, gas, or oil appliances of the type used for cooking, warming, or keeping warm food or beverages for consumption on the premises."

It was also reported here that

*(Concluded on Page 4, Column 2)*

## Liquid Carbonic To Quit Making Soda Fountains

Concentrate On Other Items As 'Home Soda Makers' Hurt Fountain Volume

CHICAGO—Liquid Carbonic Corp., which has made complete soda fountains for more than 50 years, is discontinuing production of fountains.

Declaring that the "soda fountain part of our diversified operations has been losing money," W. A. Brown, president of Liquid Carbonic Corp., declared that henceforth the company will concentrate on its other products, which include dry ice, carbonic gas, oxygen, acetylene, and bottling machines.

Liquid Carbonic will continue to supply replacement and repair parts to soda fountain operators, "as long as necessary," Brown said. The company will also continue production of soda fountains in Canada. "Canadians still like to drop in for an after-theater soda," Brown said.

Brown said that one of the main reasons for a drop-off in soda fountain trade is the trend to home preparation of sodas, sundaes, and other dishes dispensed at the soda fountains. He claims that there are now 31,000 soda fountains in use in the U. S. today, as compared with more than 40,000 prior to World War II.

The 200,000-sq. ft. plant in which Liquid Carbonic produced its soda fountain equipment is being subleased to Belmont Radio Corp., a subsidiary of Raytheon Mfg. Corp., which will use it for assembly and storage of radio and TV sets.

## FTC Orders Dealers To Stop Food Plan Misrepresentation

WASHINGTON, D. C. — A nine-point cease and desist order directing a local home freezer dealer to stop misrepresenting a food purchase plan was issued recently by the Federal Trade Commission.

This was the first case of its kind taken up by the FTC and is expected to set a pattern for future agency rulings regarding food plans. Named in the order were Phillip's, Inc., and its officers, Phillip and Mike Filderman and William Pinson.

Last December, the commission charged that in advertising home freezers, the firm misrepresented operation of a food purchase plan

*(Concluded on Back Page, Column 5)*

## Lewyt To Make Room Units on Contract Basis

BROOKLYN—Lewyt Corp., manufacturer of the Lewyt vacuum cleaner, is planning to produce room air conditioners of various sizes on a contract basis for the 1954 selling season, it was revealed by Alex M. Lewyt, president of the company.

Contract manufacturers since 1888, the company has facilities for mass

*(Concluded on Back Page, Column 3)*

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## Stockholders To Get Remington Conditioners At 35-40% Off List

AUBURN, N. Y.—A new plan under which Remington Corp. shareholders may purchase room air conditioning units manufactured by the firm at trade discounts based on the shares they hold, has just been announced by Herbert L. Laube, president.

The discount ranges from 35 to 40% from standard retail prices, Laube said, and is available to both current shareholders and new owners of shares on which this option has not already been exercised. The option is good, as long as 1953 units are still available, until Aug. 1.

Offered only for the shareholder's personal or family use in home or office, the units are new, 1953 Remington console and window-type room air conditioners.

The shareholders may purchase direct from the factory as many dollars worth of Remington units as are represented by the par value of the shares registered in his name, it was explained.

For example, a shareholder owning \$500 of par value of Remington stock would be authorized to buy up to \$500 worth of Remington air conditioners at the discount of 35 to 40% or a retail value of approximately \$800.

"That is enough," Laube pointed out, "to cover almost any heavy-duty console model in the Remington line, or any two of the smaller, window-type models." More powerful and efficient console model units are par-

ticularly well suited to larger living rooms and offices beyond the capacity of the smaller window units and offer heating as well as cooling.

To answer the question, "What size unit do I need?" shareholders are being offered, without cost, Remington's automatic direct reading comfort selector.

Although the special prices offered to shareholders do include the standard 5-year warranty, they do not include cost of installation nor the years' "free service" generally provided for in the retail prices quoted by dealers. Arrangements have been made to supply these services to Remington shareholders at cost, it was stated.

Laube voiced the belief that corporations should welcome every opportunity to extend to their stockholders—partners in the ownership of the business—every benefit and advantage within their power.

Additionally, the plan would "personally acquaint Remington's increasing group of shareholders with the products of the company they have invested in, and familiarize them with the many benefits of room air conditioning."

Another factor, he said, was the numerous requests to buy units received from shareholders during last summer's record heat. By that time, however, he added, "We were sold out. This year we're giving advance notice."

### Austin Firm Gets Charter

AUSTIN, Texas—General TV & Air Conditioning Co. here has been granted a charter for 50 years. Capital stock: \$20,000 (pd. \$10,000). Incorporators: Hattie Valdes, Roy Magen, and Wm. Yelderman.

## Auditorium Cooling Plan Survives Heated Debates

SARASOTA, Fla.—Confusion reigned at City Hall the other day but when the turmoil of discussion quieted, the City Commission had awarded a \$61,000 contract for the immediate air conditioning of Municipal Auditorium, and given the project's engineer a vote of confidence.

The unanimous vote of confidence was given Russell Raine of Winter Park, after a rather serious debate over remarks made at a previous meeting by Commissioner Forrest Freeman in which he charged "contract engineering" and led others to believe there had been some dishonest dealings.

At first, Freeman opposed the confidence vote because he said it was designed to "repudiate" the showing he made in commission meeting. He supported the move later, when other commissioners said the action had nothing to do with his charges, which Freeman maintained had not been disputed or disproved.

In other voting action, the commission split 4 to 1 (Freeman dissenting) on a motion to pay for the air conditioning out of present and anticipated surplus funds, unless the May 5 bond issue item of \$40,000 for auditorium improvements is approved by the voters, and split the usual 3 to 2 (Freeman, Early, and Correll against Hopkins and Farrell) on Freeman's motion to invite local contractors to inspect the air conditioning after it had been installed.

The work was awarded to Air Comfort, Inc. of Sarasota on the low bid of \$58,250.

## Westinghouse Finishes Its Field Tests on Three Heat Pumps

CHICAGO—Assuming the role of a potential user, the Westinghouse Electric Corp. has just completed field tests on three air to air heat pumps installed in private homes.

The experience and results gained in the residential heat pump test were quite promising according to a paper presented by G. L. Biehn, design engineer in the Sturtevant Div., before the American Power Conference here.

"Summer air conditioning units for either individual room or entire home cooling have been available for a number of years," Biehn said. The new heat pumps just tested are designed to supply either cooled or heated air to every room throughout the year.

By assuming the position of a home owner, Westinghouse believed it could quickly and simply find the answer to important questions all consumers ask about products: namely, how much does it cost to operate and maintain?

### 3 DIFFERENT CLIMATIC AREAS USED

Three different climatic areas in the United States were chosen for installation of the test units. The southeast was represented by a five-room bungalow in Miami, the southwest, by a five-room ranch type home in Fort Worth, Texas; and the northern fringe area, by an eight-room ranch style house located in Lynchburg, Va.

After the selection of the cities, the power companies supplying service to the respective areas were contacted to enlist their cooperation. Not only did they assist in making initial installation, but they also provided service to the units, collected the data, and maintained the instruments.

The air to air heat pumps are regulated by a single three stage room thermostat. There is a five degree differential between the heating and cooling stage, and a two degree differential between normal heating and the booster heat stage.

For example, a thermostat set at 74° F. would control the heating stage at this temperature. Booster heat would come on at 72° F and cooling at 79° F. A switch mounted on the thermostat permits manual control of the air circulating fan.

### OPERATION COSTS COMPARED FOR DIFFERENT CLIMATES

At the Lynchburg residence, the cost of operation of the heat pump for the first year averaged \$33.10 per month at the 1½ cents per kilowatt hour rate for this region.

In Miami, the heat pump operation costs averaged \$10.50 per month. This figure is based on the local 1½ cents per kilowatt hour rate. Cooling is the prime requisite in Miami; thus the cost is accepted as a rather nominal addition. It was heating that made the impression on the home owners here, however, since the usual type of heating used in this area is not too comfortable.

Although a full season has not quite been completed at the Fort Worth, Texas installation, present data indicate that the operational cost will be less than \$40 per month. The rate including demand charges and fuel adjustment is somewhat over two cents per kilowatt hour.

As expected, a few minor adjustments were required when these units were installed and first operated. There have been no failures of any major part of the units and none of the hermetic systems have been opened since they were put into operation.

### ALL THREE FAMILIES MORE THAN SATISFIED

Each of the three families in whose homes the heat pumps were installed found the system to be more than satisfactory in every respect. They were especially fond of the heating due to the lack of drafts or dryness generally present in other types of hot air heat.

Biehn concluded his talk by stating that the test program has provided results that have been of real value in developing the residential heat pump. He stated that the air to air heat pump is now being offered commercially by Westinghouse with initial production scheduled for late summer.

## Amana Freezer Sales Set Record In First Quarter

AMANA, Iowa—The first quarter of 1953 was a record period for Amana Refrigeration, it was announced recently by George C. Foerstner, executive vice president.

Sales in January, February, and March were 65% greater than those of the same period last year, and were 10% higher than the fourth quarter of 1952, Foerstner said.

"Accompanying this record volume of factory shipments—in what is normally the poorest sales season—has been the encouraging sign that our freezers never have been moving so fast from dealer inventories," he continued.

"We know this because we received the greatest number of warranty cards from new customers and this is a sure barometer. The freezer selling season obviously started earlier than last year," he added.

Sales of Amana's 14-cu. ft. chest freezer, the model that debuted late in December, 1952, have been "extremely gratifying, far exceeding our forecasts," Foerstner said.

Amana's production is being expanded continually. A substantial boost is expected in June when new electronic painting facilities are completed.

Foerstner said he expected the entire freezer industry to have a good second quarter.

## New Atlanta Bldg. To House Regional Staff of Carrier

ATLANTA—A new two-story office building of Carrier Corp., four miles from downtown Atlanta, will be opened about October 1.

Officials said the new building will house 90 members of the sales, engineering, construction, and service departments of the firm's southeastern regional staff. However, Carrier's shop facilities will remain in Atlanta's industrial section.

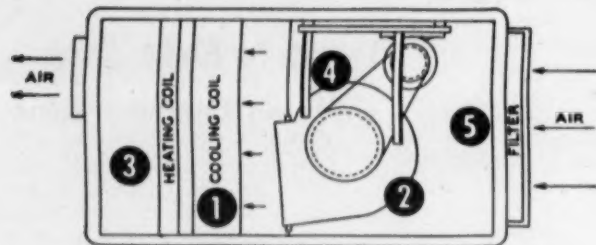
Located at 2005 Peachtree Rd., the building will be constructed of reinforced concrete with a Roman brick and limestone exterior, and will contain approximately 22,000 sq. ft. of floor space. Provision will be made for a third floor, for future expansion. It will be essentially windowless, completely air conditioned, and provided with the most modern designed lighting and acoustical treatment.

Carrier executives scheduled to occupy the new building include Marion Darby, district manager, Direct Sales Div.; George T. Long, regional manager, Dealer Sales Div.; and George C. Robertson, district manager, Dealer Sales Div.

## NEW FEATURES of PROVEN MERIT

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### 2 "BLOW-THROUGH" DESIGN

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No corrosion of fan-scroll assembly from moisture carry-over of the cooling coils.

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Only a small portion of the casing is exposed to cooled air; that section is heavily insulated.

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The fans and motor form an integrated assembly independently rubber-mounted to the casing. All moving parts are completely isolated by rubber.

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### Pill Buyers Are Hot Prospects!

## Health Conscious Public Seen Ripe for Benefits Offered by Room Air Conditioners

DETROIT—There's more to sell in room coolers than cooling, H. W. Branson, Cleveland district manager for Carrier Corp. emphasized to Detroit area air conditioning dealers recently.

Some dealers, he said, seem to think that room coolers won't sell in their area because there are only a few days of really hot weather. This isn't true, he contended.

Comfort and health are two other good reasons why customers will buy, he said. Reduction of humidity alone will produce more comfortable living and working conditions in many areas and is a powerful incentive to buy.

People are getting more neurotic every day, he said. With doctors and life insurance companies spending big money to tell people how to live longer and to be healthier, people are very health conscious. Their medicine chests are crowded with cough medicine, aspirins, and vitamin pills. Air conditioning, by producing more healthful conditions in the home, will save them money on their doctor and medicine bills, he pointed out.

Branson and other members of the Cleveland district staff took turns in providing sales information on Carrier room coolers to the dealers and answering their questions.

### WHY ROOM SURVEY IS IMPORTANT

Bill Rudoy explained why it is important to make a survey of the room the customer wants air conditioned, rather than basing unit selection on size of room alone.

"A room is like a boat with a leak in it," he declared. "If you don't bail water out of the boat faster than it comes in, the boat will sink. If you don't remove heat from a room faster than it comes in, the temperature will continue to rise, no matter what the size of the room cooler."

When a customer calls in and wants to know what size unit she needs for a 15 by 15 ft. room and you name a specific size unit, what have you got left to sell but price, he asked.

It makes a lot of difference where the room is located, he said. Even the customer will understand that a 15 by 15 room in the basement is a lot cooler than the same size room in the attic.

Other factors that will affect the heat load are the number of windows, the direction the room faces, whether or not there is an open archway or doorway, intensity of lights, number of people that use the room, and the insulation.

### CARRIER DEVELOPS ESTIMATING FORM

He pointed out that Carrier has developed an estimating form that takes into consideration all these factors and is simple to work.

Asked if one air conditioner can be used to cool two rooms, he said that it could under certain circumstances. If there is effective circulation through both rooms—where they are connected by a broad archway rather than a narrow doorway—a single room cooler could cool both. But it should be placed in a position where it can throw cool air into the second room. In this case, the two rooms must be considered as one when making the survey, he asserted.

### 70% OF ROOM CONDITIONERS INSTALLED IN HOMES

Jack Ohlrich, also of the Cleveland district, told the dealers that 70% of room air conditioners are installed in the home and four out of five of these are put in a bedroom.

He showed a Carrier slide film on "Selling the Difference in Carrier" which pointed out that the time for the salesman to start selling his second unit to a family is the time he closes the order for the first one.

The film advised the salesman that if the first unit was purchased for a bedroom, he should, before leaving the customer, survey the living room

for an air conditioner, point out the advantages and benefits to the prospect, show how two can be purchased at slightly higher payments per month than one, and, if possible, install a demonstrator model for a period of several days.

Even if you don't close the second sale immediately, the film noted, you will have planted the seed for closing at a later time.

Dalton Fox, promotion manager for Temperature Control, Inc., Car-

rier distributor in Detroit, told the dealers that he has built up two prospect lists that they could use for their mailings.

One list includes 20,000 names of local people earning \$10,000 per year or more. The other is a list of homes priced at \$25,000 or higher.

Dealers were welcome to use all or part of the list for direct mail promotion. Fox had three different packaged mailings for them and said that he would take care of all the details himself. Return postals would go directly to the dealer.

He noted, however, that a dealer's own list of satisfied customers was the best to use.

He said that one dealer recently bought a package of three mailings to a list of 1,300 names. From the first piece sent out, he received 13 return postals and several walk-in prospects.

Fox said that he was confident that the two remaining mailings would pull as well or better.

He indicated that the sale of two or three room air conditioners would more than pay for the entire direct mail program and the sale of a single Weathermaker would do the same.

## Plastic Offers Protection from Sun's Heat, Reduces Air Conditioning Cost

CAMBRIDGE, Mass. — Protection against the sun's heat, glare and ultra-violet rays in the form of a thermoplastic, which has been successfully field tested on textile mills in the South for more than three years, is now ready for national marketing in many industries.

The two anti-sun protective products are a spray-on plastic film and a sheet plastic, both produced by Eastern Industrial Service, Inc., of Cambridge, Massachusetts, under the trade name Thermoglare.

Use of the film, which is sprayed on windows, has materially cut air conditioning, fuel and electricity costs in Southern mills, it is stated. The sheet plastic, companion product, has the same characteristics.

Laboratory and factory tests reveal the products will filter out blinding ultraviolet rays up to 95%, reduce transmission of hot infrared rays up to 80% and eliminate sun-glare problems, the company states. They

are weather resistant.

Both are translucent, coming in two scientifically-balanced colors, blue-green and frost white. They provide diffused working light. Further "shading" of factories is unnecessary when they are used. The sheet plastic is shatter-proof and is designed to be used instead of glass window panes.

A full-fledged promotional campaign is being launched this week by the corporation, which is headed by L. W. Broome, former color consultant to the government during World War II. The firm has a Washington office at 2020 R St., N. W. The Cambridge office is at 17 Day St.

### WHY WAIT?

Get your new product info pronto. Use coupon on "What's New" page this issue. Use Key No. for fastest service.

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THIS is what the world has been looking for... a room air conditioner that will fit all Steel and Aluminum Casement Windows without destroying or mutilating mullions and muntins, no drilling, cutting or filing. It can be installed in just one window opening as small as 10 1/4" high and 14 1/2" wide, in less than 30 minutes by either service man or customer. Requires no special framing, window brackets or wing adapters—no installation kit needed.

Summer is close... so handle the room air conditioner that will sell itself, it meets all demands, because...

**THERE IS NOT A WINDOW MADE (CASEMENT OR DOUBLE HUNG) THAT THE DEERING WILL NOT FIT.**

**The DEERING AIR CONDITIONING CO.**  
CINCINNATI 2, OHIO

**ACT NOW!**  
PROFIT IN 1953 FROM  
A BRAND NEW DIMENSION IN ROOM AIR  
CONDITIONING

**Yes!** I am interested in a franchise for the DEERING casement window room air conditioner. Please rush me full information.

Name \_\_\_\_\_  
Company \_\_\_\_\_  
Position \_\_\_\_\_  
City \_\_\_\_\_ Zone \_\_\_\_\_ State \_\_\_\_\_

**MAIL TODAY TO**  
**THE DEERING AIR CONDITIONING COMPANY**  
1069 CELESTIAL AVENUE • CINCINNATI 2, OHIO



## Shouse Heads Crosley New Airtemp Unit--

(Concluded from Page 1, Column 4)  
committee, with his expanded responsibilities will supervise Crosley Div. plants in the Cincinnati area as well as those in Nashville, Tenn., Richmond, Ind., Batavia, Ill., and Carrollton, Ky.

He will continue as chairman of Crosley Broadcasting Corp., which has radio stations in Cincinnati and New York and television outlets in Cincinnati, Dayton, Columbus, and Atlanta.

Craig, who also was elected a director of Aluminum Industries, will be general manager of the company's operations in its two plants in Cincinnati. The company is a major producer of all types of aluminum castings and automotive parts. It owns and operates one of the world's largest and most modern foundries for the pouring of aluminum alloy castings.

Shouse joined the Crosley organization in 1937 as a vice president and director of The Crosley Corp. He was named president of Crosley Broadcasting Corp. in 1946. He was elected board chairman of the broadcasting subsidiary in 1948.

Active in many business and civic affairs, he is also a director of the Cincinnati Enquirer and Central Trust Co., Cincinnati, and president of the Cincinnati Chamber of Commerce.

Craig, who has been with Crosley since 1937, was born in Troy, Ohio, in 1907. He is a graduate of the University of Dayton in 1929, with a B.S. Degree in mechanical engineering. Prior to joining Crosley he was for eight years with the engineering department of Frigidaire Div.

(Concluded from Page 1, Column 3)

spaces under main floors and with basement forced warm-air furnaces.

As described by the Airtemp president, the air-cooled model built for basement installation can be located outside next to the house. A refrigerant is piped from the condensing unit to a cooling coil in the main furnace duct.

The home air is circulated through the coil by the furnace blower, cooling the air and warming the refrigerant. The warmed refrigerant is returned outside to the condensing unit and cooled by outside air.

The new units will be introduced next month at nationwide new-product displays. Buchholzer stated. Also, a new four-cylinder lightweight compressor and a completely redesigned line of Airtemp gas and oil-fired hi-boy and lo-boy furnaces are scheduled to be shown.

## Excise Tax Proposal--

(Concluded from Page 1, Column 4)

hearings on proposals for the repeal of the 10% Federal excise tax on household ironers and dryers will be held by the Ways and Means Committee sometime in May. The House committee indicated that it would take up the matter after completing hearings on reciprocal trade bills.

These reports followed the appearance in Washington, D. C. newspapers of full page advertisements appealing for the removal of the tax. The ads were sponsored by the American Home Laundry Manufacturers Association.

## Salt Air Will Meet Match—Year-Round Air Conditioning

PORT WASHINGTON, L. I.—Sea air will have a tough time causing its usual damage to homes when it tries to go to work on the new Beach-Way Estates community under development on Manhasset Bay.

Year-round air conditioners are going to be installed in all the homes, being built by Irving Steinberg. They will help to eliminate dampness, mildew, and other damage caused by salt air, simplifying housework and providing more protection for furniture, rugs, and draperies, it was pointed out.

The Carrier "Weathermakers" will also provide the opportunity to use lighter colors, since they are claimed to keep a house virtually free from dust and dirt.

Two model houses in the community were recently opened for public inspection.

## Young Buys Calhoun Interest In Spartanburg Dealership

SPARTANBURG, S. C.—Calhoun Office Supply Co., 124 West Main St., for many years authorized dealer for Frigidaire and other appliances, has changed its name to Young Office Supply Co. It will continue business at the same location.

T. Rudolph Young, Sr. has purchased from Julian Calhoun the latter's one-half interest in Calhoun Office Supply Co. Young said plans are being made to form a partnership between himself and his son, Tom R. Young, Jr., whose discharge from the Army became effective April 1.

## Lehigh Air Conditioning Conference--

(Concluded from Page 1, Column 3)

dences presented by F. W. Deady of Bryant Heater, the group heard Prof. R. W. Roose of the University of Illinois compare actual and calculated cooling loads for a residence.

(As reported several weeks ago in AIR CONDITIONING & REFRIGERATION NEWS, Prof. Roose's paper—given at the annual ASHVE meeting in Chicago last January—showed that the measured load was less than had been calculated.)

Highly favorable views on residential air conditioning came out at an evening panel discussion featuring an architect, interior designer, a builder, and a health authority.

"Architects have been designing homes for climate ever since the Eskimo built the first igloo," commented H. R. Sleeper, a leading architect of New York City. "Now with air conditioning the architect has to change his thinking."

His wife, Catherine Sleeper, told the group that "air conditioning saves the housewife time, energy, and worry. With filtered air a house may be decorated with high key color and modern rough textured material and keep in good condition for twice as long as with unfiltered air."

"The builders' interest in air conditioning is not confined to the South," emphasized C. O. Christensen, associate director of the Research Institute operated by the National Association of Home Builders. "Builders in Boston, for example, are very much interested."

Christensen also urged that "you take with a grain of salt some of Cole's remarks about engineering calculations being off the track. Seriously, problems are in the residential air conditioning picture but it would be unfortunate if you got the impression that NAHB had a negative approach to new developments such as air conditioning. We want to work toward a common goal."

R. C. McCaldin of the U. S. Public Health Service told the group that of 32 basic requirements in achieving health in the home, the first three are concerned with temperature and purity of the air.

"Summer air conditioning will certainly fill the bill on some of these."

Vapor problems involved in residential air conditioning were cited by C. W. Nessell of Minneapolis-Honeywell Regular Co., who re-

mind the group that "moisture and heat gains in a house help the heating system but hurt the cooling system, and the capacity of the latter is limited."

Under the broad subject of "Problems in the Control and Operation of Air Conditioning Systems," W. A. Grant of Carrier, W. G. Sont of American Radiator, and G. R. Wachter of York conducted a panel discussion which took up many phases of system design and installation.

With respect to operating costs, Walter Friend, consulting engineer, warned the conference that "although utilities are anxious to sell power, there is no indication that electricity will be any cheaper for air conditioning within the next few years. You can, however, reduce electricity consumption."

As the final speaker, John R. Hertzler, vice president of York Corp., reviewed the discussions of the conference and outlined various fields for future research.

## U. S. Radiator--

(Concluded from Page 1, Column 2)

Radiator's entry into the air conditioning business on a national basis," Mc Cord continued, "covering a full range of air conditioning equipment—from large equipment for commercial and industrial buildings down to small units for homes."

"The important feature of Drayer-Hanson's summer air conditioning equipment, marketed under the trade name 'Spotaire,' is its adaptability to steam and hot water heating installations. This is virtually an untouched market, and extensive developmental work has been completed by Drayer-Hanson over the past three years."

"Present summer air conditioning equipment marketed by U. S. Radiator is designed for use in connection with its warm air furnace line. The new Spotaire conditioners can be used in conjunction with the U. S. line of boilers, radiators, and accessories for hot water and steam installations."

Drayer-Hanson's line of products includes, in addition to air conditioning equipment, commercial refrigeration units, water chillers, product coolers, finned steel and copper tubing, oil refinery equipment, and aircraft components.

# Announcing THE NEW, COMPACT AMERICAN-STANDARD PACKAGED AIR CONDITIONER

## for commercial establishments

Here's a self-contained unit that comfort cools, dehumidifies, ventilates, cleans and circulates the air . . . also readily arranged for winter heating!

Note the *many advantages*

this new unit offers your customers:

- 4-WAY ADJUSTABLE GRILLES discharge air at any angle above head level.
- ADJUSTABLE FAN MOTOR PULLEY permits air volume adjustment to fit application.
- CABINET IS ACOUSTICALLY INSULATED for quiet operation.
- "HUMID WEATHER" CONTROL removes additional moisture from air on muggy days.
- HEATING COIL, using either steam or hot water, can be furnished at additional cost.
- ALL AIR IS FILTERED as it passes through the unit.
- CONTROLS ARE CONCEALED. Adjustable thermostat regulates air temperature. Fan can be operated separately without cooling.
- REFRIGERANT CIRCUIT is completely hermetically-sealed.
- COMPACT DESIGN saves valuable floor space. (dimensions shown for 2 and 3HP units).
- EASY TO INSTALL—conditioner is shipped ready for electrical, water and drain connections.

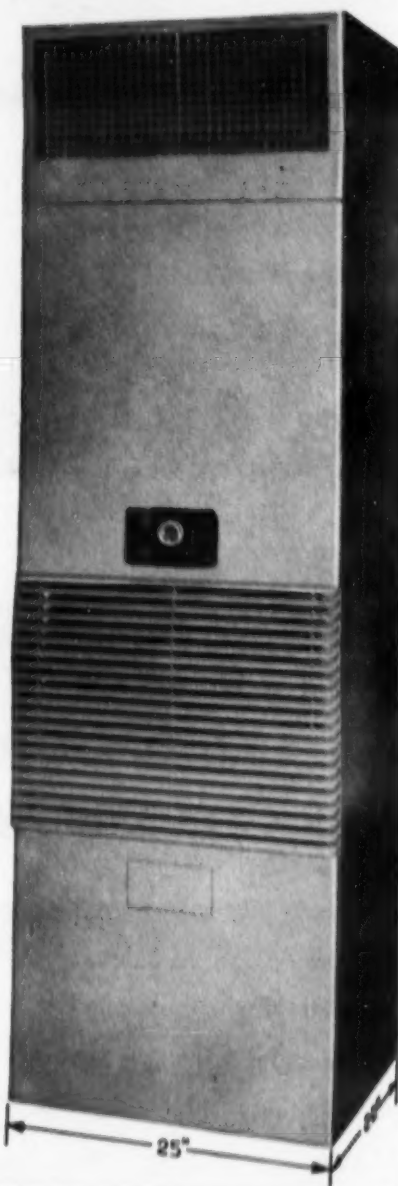
For further information, contact your wholesale distributor or send for Form No. 403.



**AMERICAN-Standard**  
AIR CONDITIONING

American Radiator & Standard Sanitary Corporation, Pittsburgh 30, Pa.

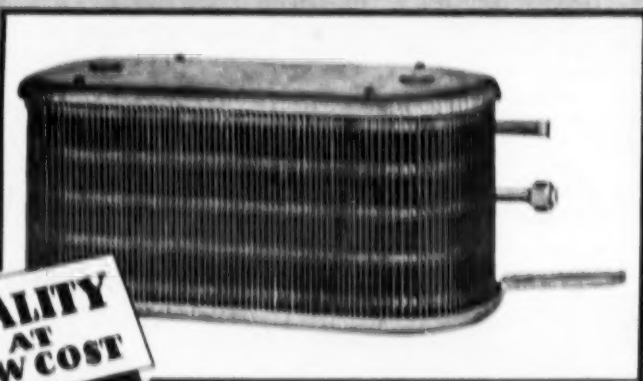
Serving home and industry



American-Standard  
Dept. AN-53, Pittsburgh 30, Pa.  
Please send me Form No. 403 describing the Packaged Air Conditioner.

Name \_\_\_\_\_  
Company \_\_\_\_\_  
Address \_\_\_\_\_  
City \_\_\_\_\_ State \_\_\_\_\_

# BETZ RADAIRE



QUALITY  
AT  
LOW COST

## FOR BACK-BARS BEVERAGE BOXES AND GENERAL APPLICATIONS

MODEL NO.	BTU'S @ 1" T.D.	G.P.M.	COIL SURFACE	LIST PRICE
A-85-U	85	190	17.3 Sq. Ft.	\$56.00
A-115-U	115	250	23.8 Sq. Ft.	68.00
A-150-U	150	310	31.8 Sq. Ft.	82.00

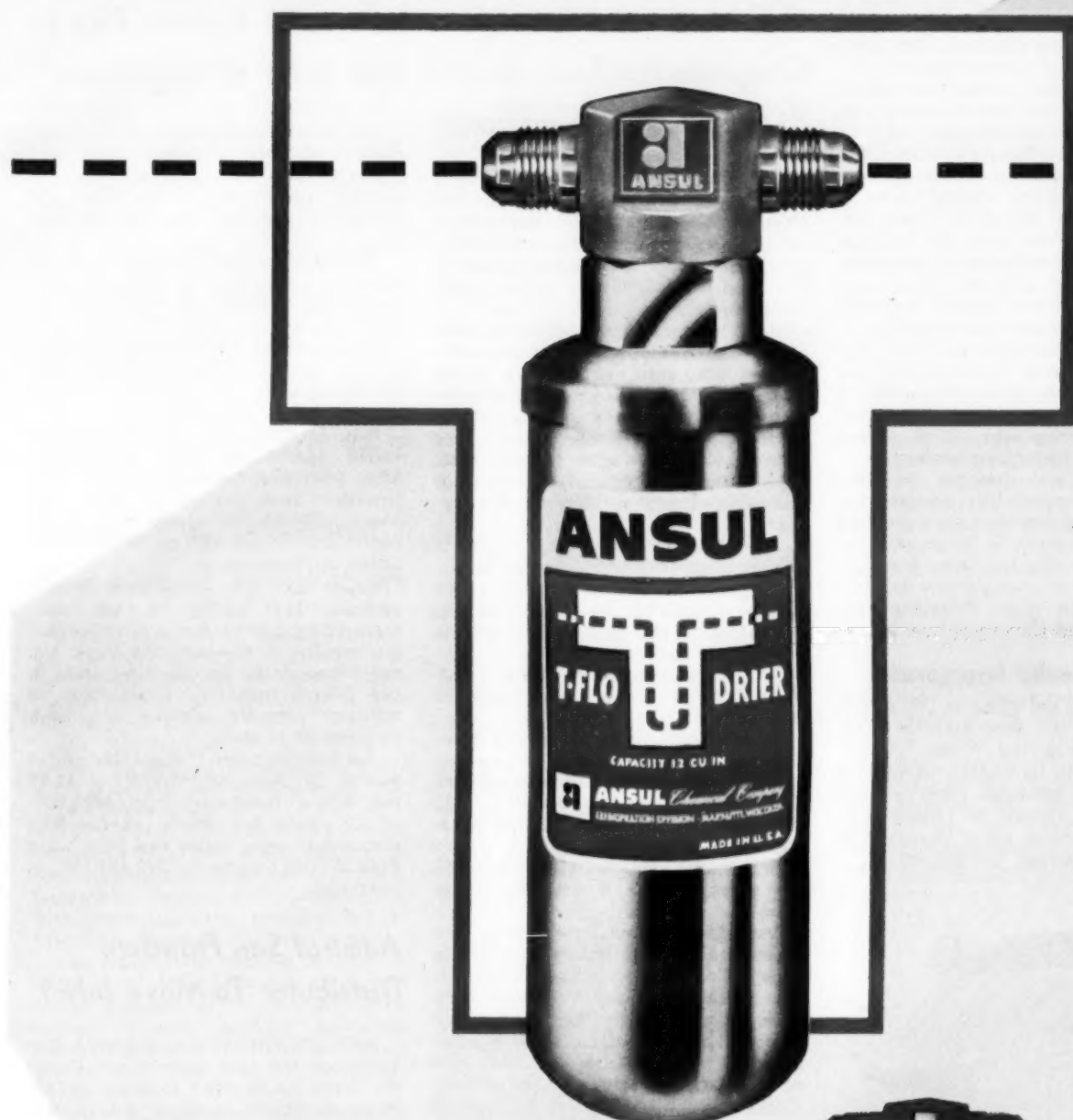
SEE THEM AT YOUR WHOLESALERS

**BETZ CORPORATION**

HAMMOND ★ INDIANA



# HIGHER EFFICIENCY • GREATER CAPACITY • FASTER PICKUP



## WITH THE NEW ANSUL T-FLO DRIER WITH ANDRITE

The new Ansul T-FLO Refrigerant DRIER ... with ANDRITE ... is new in design, new in appearance and has already established new high performance ratings for efficiency, capacity and rate of moisture pickup. It is easy to install and much easier to replace than conventional types of driers.

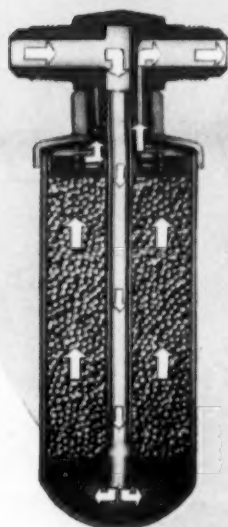
In the new Ansul T-FLO DRIER, the desiccant, ANDRITE, consists of thousands of uniformly-sized spheres or beads. As the refrigerant passes through the bed of ANDRITE in the Ansul T-FLO it is in constant contact with a far greater area of moisture-absorbing surfaces than in any other kind or form of desiccant.

## ANDRITE

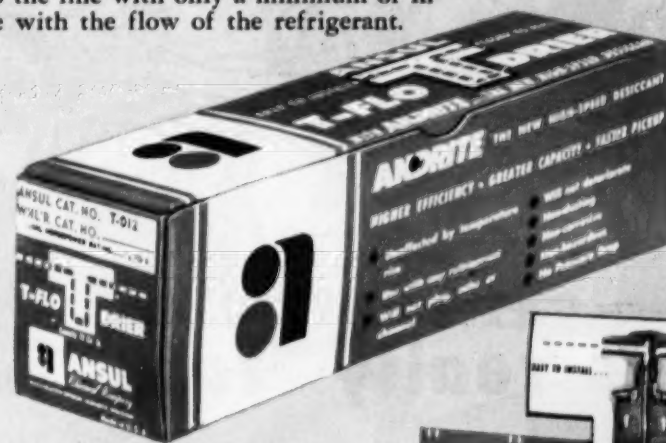
### THE NEW HIGH • SPEED DESICCANT

ANDRITE, the new *High-Speed* desiccant in ANSUL T-FLO DRIERS is in the form of uniformly-sized beads or spheres. It is the **ONLY** desiccant which provides **ALL** of the following advantages: —

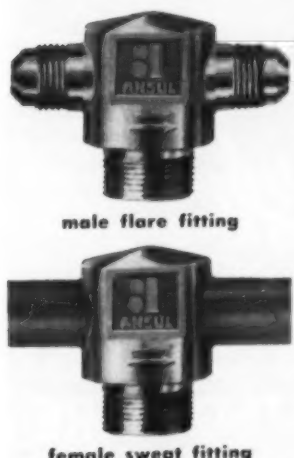
- |                               |  |
|-------------------------------|--|
| 1. Causes less pressure drop. | 7. Is unaffected by temperature rise up to 140° F. |
| 2. Will not plug.             | 8. Can be used with any refrigerant.               |
| 3. Will not cake.             | 9. Is non-corrosive.                               |
| 4. Will not dust.             | 10. Removes acid.                                  |
| 5. Will not channel.          |  |
| 6. Will not break down.       |  |



The refrigerant enters the T-FLO DRIER through the directional tube to the well of the drier shell. It then passes through the entire bed of the desiccant losing its moisture as it moves rapidly over the thousands of thirsty surfaces of uniformly-sized beads of ANDRITE. It returns to the line with only a minimum of interference with the flow of the refrigerant.

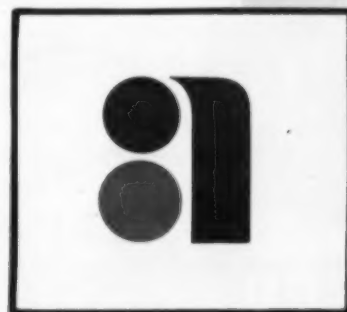


Buy Ansul T-FLO DRIERS where you see this attractive Ten-Drier Display Carton on your Refrigeration Wholesaler's counter. Every Ansul T-FLO DRIER is doubly protected against moisture getting into the drier after it is packed for shipment. In addition to its moisture-proof shipping cap, each Ansul T-FLO DRIER is enclosed in a heat-sealed cellophane bag.



### CONNECTOR FITTINGS FOR ANSUL T-FLO DRIERS

Sweat (solder) and flare connector fittings are available for installing Ansul T-FLO DRIERS into refrigerant lines. These fittings are permanently installed into the line. Breaking the line is unnecessary when a T-FLO DRIER needs replacing. With only four sizes of driers and seven sizes of connector fittings the service engineer has 28 combinations of installation ... a distinct advantage since less stock is required to maintain an efficient inventory and cope with any drier installation job.



**ANSUL**  
*Chemical Company*

REFRIGERATION DIVISION • MARINETTE, WISCONSIN

MANUFACTURERS OF REFRIGERANTS, REFRIGERATION PRODUCTS, DRY CHEMICAL FIRE EXTINGUISHING EQUIPMENT, FINE CHEMICALS, INDUSTRIAL CHEMICALS. — DISTRIBUTORS OF KINETIC "FREON" REFRIGERANTS







## Commercial Refrigeration

### Butchers Wrap Meats In Pliofilm When Purchased

CHICAGO—Butchers at Savers Certified Food Mart here are wrapping all fresh meat and fish filets in pliofilm for their customers at the time of purchase, it was reported here recently.

Hy Saverslak, a partner in the new market, said the store adopted this practice because many customers wanted to buy enough meat for several days and keep the cuts in their refrigerator or freezer. He added that film wrapping of fish has the obvious advantage of sealing in the odors.

### Babson Bros. Introduces New Line of Milk Coolers

SYRACUSE, N. Y.—Babson Brothers Co. of New York, distributor of the "Surge" line of dairy farm equipment, is now producing a new line of milk coolers.

The cooler line features "Styrofoam" insulation, the foamed polystyrene plastic manufactured by The Dow Chemical Co.

The Babson milk coolers are constructed with an inner and outer sheet steel cabinet reinforced by a hardwood frame and floor. The Styrofoam insulation completely fills the space between the steel walls.

The inner steel cabinet or shell is constructed as a unit with all locked joints soldered after assembly. The outside of the bottom, and the soldered joints, of the inner steel shell are painted one coat of black asphaltum.

When dry, the inner shell is placed within the hardwood frame and the assembly is inverted. The Styrofoam insulation is fitted into place and the panels of the enameled steel outer shell are applied and secured to the hardwood frame by screws. The insulated top or side opening doors are put in place and the hinges and latches affixed.

### Hussmann Net In Quarter Up 70%, Sales Rise 67%

ST. LOUIS—Hussmann Refrigerator Co. has reported that consolidated profit for the first quarter of 1953 rose about 70% above the year-ago level and that net sales were up 67%.

First-quarter net earnings totaled \$381,893, equal to 87 cents a common share, compared with \$224,646, or 51 cents a share, for the first quarter of 1952.

Net sales in the first three months were the highest of any quarter in the company's history, the firm said. They totaled \$7,832,089, compared with \$4,681,842 in last year's first quarter.

W. B. McMillan, president, said all divisions showed sales increases over the first quarter of 1952, with the aircraft division contributing a large percentage of the total increase.

McMillan reported that the outlook for the second quarter is favorable. New orders booked for civilian products show a substantial gain, he said.

### McQuay Names Johnson To Cover Area In East

MINNEAPOLIS—H. Blake Thomas, vice president in charge of sales of McQuay, Inc. here, announces the appointment of Bob J. Johnson of Springfield, Delaware county, Pa., as the new refrigeration products representative for the company in the Pennsylvania, Maryland, Virginia, and West Virginia territories.



For the past seven years, Johnson's experience has been with the wholesalers throughout the above territory.

### Spellman Takes Sales Post At United Refrigerator

NEW YORK CITY—Sydney M. Spellman, long identified with the home freezer industry, has been appointed United Refrigerator Co.'s regional sales manager in charge of all territory west of the Mississippi. Noah A. Bower, national sales manager, announced recently.

Spellman resigned as assistant sales manager of Renaire Corp. to join United. His appointment is part of the expansion program launched April 1 by United Refrigerator of Hudson, Wis. The firm recently opened an office in New York City and named Bower national sales manager.

Spellman will set up freezer-food programs for appliance dealers, department stores, and food plans in his territory. He will also supervise and teach sales procedure to sales personnel of these outlets.

Prior to his affiliation with Renaire, Spellman was regional sales manager of Freshmaster Corp. In both positions, he worked closely with Bower, who was formerly vice president and national sales manager of these firms.

### Buildice Issues New Catalog

CHICAGO—A complete catalog of industrial refrigeration products manufactured by Buildice Co., Inc. has been issued by the company.

Catalog sheets illustrate and describe all of the equipment and provide physical and engineering data. In addition the catalog contains a section of engineering data of general refrigeration application.



### Sales Group Hears Lehigh's Expansion Plan

Plans for expansion of Lehigh's refrigeration condensing unit line were outlined to these field sales representatives of Lehigh Mfg. Co. by Frank E. Shumann, head of the company. Plans include introduction of several new capacities in hermetics, an increase in capacities in open units, additional models and unit systems in truck refrigeration. Shown at the meeting was the new Lehigh X-300 high speed compressor designed especially for automobile air conditioning and truck refrigeration.

In picture, are (rear row, l. to r.): Leroy M. Bissett, general manager; A. A. McCormack, development engineer; Lew Russell, Russell Sales Co., Los Angeles; Allan Ruth, chief engineer; Mrs. Christine Furlow, assistant sales manager; Clyde Webb, Ft. Worth; Harry Seese, Los Angeles; Bernard Packtor, New Haven, Conn.; Chan Coombs, sales manager. Front row (l. to r.) Lou Levy, Washington, D. C.; Ray Hoehn, service manager; Ollie Kesti, Detroit; Bill Gullatt, Atlanta; Henry Gullatt, Atlanta; Dick Ballinger, Seattle.

### Firm To Specialize In Truck Refrigeration Sales, Service

DETROIT—Specializing chiefly in truck refrigeration sales and service, Commercial Refrigeration Service, Inc. has been formally organized here by Charles Heemstra.

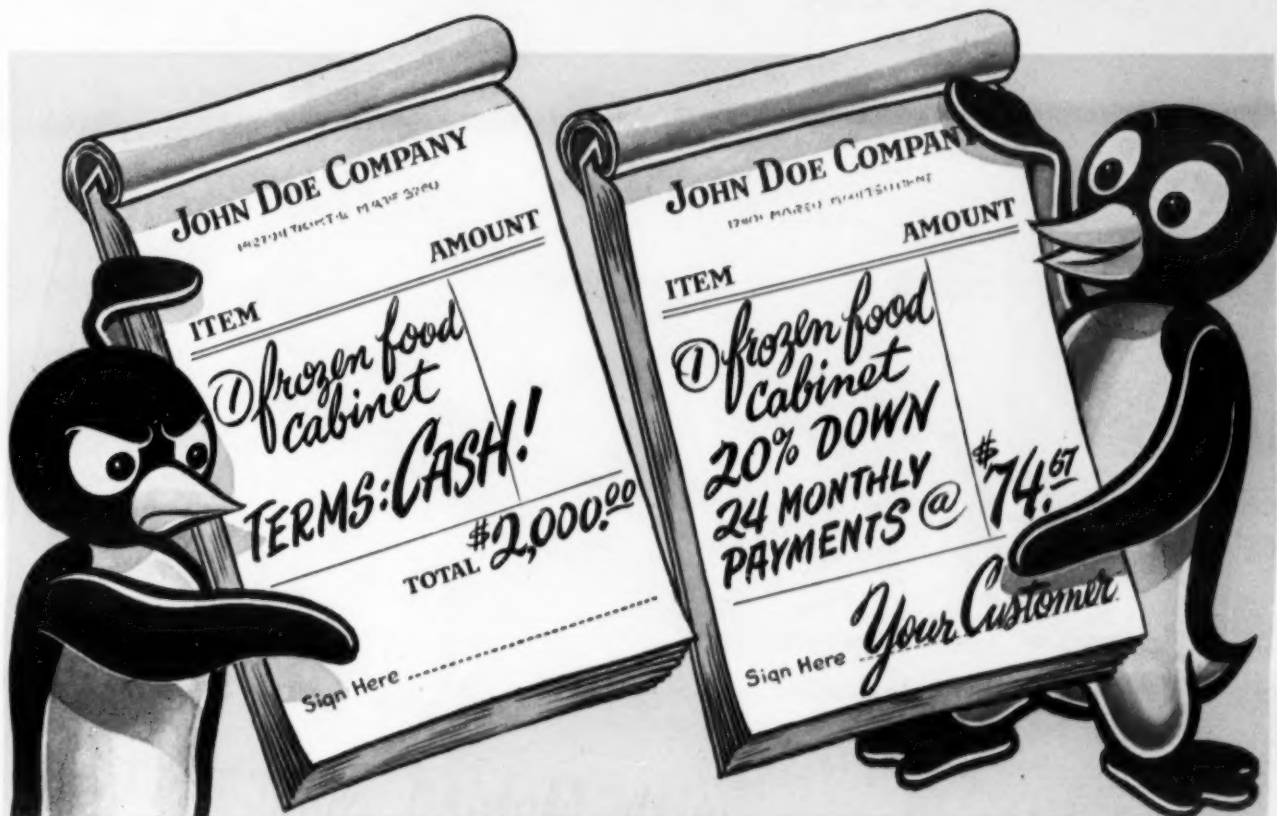
In addition to incorporating under a new firm name, Heemstra also re-

cently moved into a 3,000-ft. garage big enough to handle refrigeration work on the largest trucks.

The firm now represents three lines of truck units: Tru-Kooler, Thermoking, and Arctic Traveler, Heemstra said.

Howard "Mac" Donough heads up refrigeration service for the company while Clarence Rodocker is in charge of gasoline engine work.

**IF YOU WERE Your Prospect**  
**which order would YOU sign?**



**Feature Time Payments to close more sales**  
**with the COMMERCIAL CREDIT PLAN**

**M**ORE AND MORE prospects for commercial refrigerating and air conditioning equipment are becoming, of necessity, **TIME BUYERS**. Because of their cash position it's the only way many can buy your equipment. The **COMMERCIAL CREDIT PLAN** helps close sales . . . improves your cash position by avoiding accounts receivable. And you turn your credit and collection worries over to **COMMERCIAL CREDIT**. For complete details, facts and figures, write **COMMERCIAL CREDIT CORP.**, 14 Light Street, Baltimore 2, Md. or our nearest office.

### COMMERCIAL CREDIT CORPORATION

A service offered through subsidiaries of Commercial Credit Company, Baltimore . . . Capital and Surplus over \$125,000,000 . . . offices in principal cities of the United States and Canada.



**Day after day.**  
**TIME WILL SELL!**



**Colder bottles mean more sales**



Model No. TD-360  
Beverage Cooler "de-frost-it"  
Only \$9.95 List

**lower temperatures than ever before**  
**with this Paragon "de-frost-it"**

**R**ELIABLE automatic defrosting keeps bottles at lower temperatures than ever before with this Paragon "de-frost-it" Model TD-360.

Specifically designed for beverage cooler applications, the Paragon "de-frost-it" Model TD-360

can be used with all makes, most models. Compact, easy to install, it can be mounted in compressor compartment. It's factory pre-set, but cycle is adjustable from 1 to 5½ hours. Up to 1/3 HP capacity.

For full details or the name of your jobber, write:

### PARAGON ELECTRIC COMPANY

1687 TWELFTH STREET • TWO RIVERS, WISCONSIN

They must be good. 96% of the manufacturers of commercial refrigeration equipment using automatic defrosting specify Paragon defrosters as standard equipment. © 1953



## INSIDE DOPE

by GEORGE F. TAUBENECK

(Concluded from Page 1, Column 1)

mean when we talk of men or women of 'sound judgment' or of 'common sense'. We distinguish them from the expert whom we rather distrust. We should defend this attitude by saying that the expert is a specialist: that what is wanted for conduct is all-round experience of people and things. 'Sound judgment' or 'common sense' are not the products of ignorance. They are produced by experience of a certain kind, by responsibility, by a varied acquaintance with men and things and by an all-round experience. The expert or specialist on the other hand has probably paid for his expert knowledge by having had to undergo a long training which has removed him from the ordinary rough-and-tumble of life. He has probably not had to check his judgments by practical experience. He has probably not had to check his mistakes. He has become 'academic' in the bad sense of that term."—A. D. LINDSAY.

### Will Bafflegab Survive Under Eisenhower?

Bafflegab, a word born in dismay over bureaucratic babble, is knocking at the gates of Webster's dictionary.

Charles R. Sleeth, assistant editor

of the New International Dictionary avers: "bafflegab definitely is being considered."

As everyone knows, Webster's New International Dictionary is about as far as a word can go. It's an etymological Matterhorn, a World Series for serious words.

Normally, an average of only about 200 words per year reach the chill, lonely peaks of the New International addenda. Bafflegab is now in sight of Matterhorn.

Yet it seems only yesterday that a sputtering young lawyer dreamed up bafflegab. He was Milton A. Smith, assistant general counsel for the Chamber of Commerce of the United States, and he'd just spent a maddening day trying to explain OPS regulations to a colleague.

"I decided we needed a new and catchy word to describe the utter incomprehensibility, ambiguity, verbosity, and complexity of government regulations," said Smith, showing he was pretty well on the way toward bafflegab himself.

So he set to work with his costly and delicate instruments—one broken pencil, a dictionary, and a thesaurus. First, he scribbled down "legalfusion," "legalprate," "gabalia," and "buro-babble." Then "babble," "gab," "prate," and "baffling." Still weary and ill at ease, he suddenly struck one mighty chord—"bafflegab."

That was last May, but things moved fast.

Bafflegab was a word that sang and danced. It hoofed its way across the nation's news circuits and even did a soft-shoe on the editorial pages. Smith was solemnly awarded a plaque commemorating his invention by Mike DiSalle, then OPS boss, in

response to an article by the *Bellingham* (Wash.) *Herald*.

And now that his brain child is on its way toward Webster's, Smith is a happy man.

"It'll be fun looking myself up in the dictionary," he says.

### Help! Help! Help!

An interesting and helpful "handbook of rescue" for unwitting victims of socialism is contained in a Washington Chamber of Commerce booklet. It reveals how government-owned industry can be returned to private ownership. Entitled "Re-Privatizing Public Enterprise," it details methods of denationalizing the socialized industry we already have.

Suggested: resale of these facilities to private owners. An example: The Schering Corp. of New Jersey, a German-owned drug firm seized by our government during World War II under the alien property law. After 10 years of Federal ownership and operation the government sold Schering to a banking syndicate which, in turn, offered its stock to the public. The issue was over-subscribed by about three times in a few hours, partly due to the rosy outlook for "wonder drugs."

In a less prosperous country, especially where socialist pressure is strong, denationalization is difficult, though still possible.

In Great Britain, for example, the Conservative Government is trying to sell the nationalized trucking industry to private buyers. But Laborites are fighting that sale, and free-enterprise buyers.

There is a road back from socialism, but it is a rocky road full of thorns for the taxpayers.

## Credit Group Encourages Instalment Buying As Means of Raising Standard of Living

WASHINGTON, D. C. — The National Foundation for Consumer Credit, Inc. will continue its efforts to encourage time buying on the part of the 10 million American families in the \$2,000 to \$7,500-a-year income bracket who still buy only for cash.

This was revealed in the foundation's annual report released recently by John M. Otter, president of the group and vice president of Philco Corp.

The report stressed the importance of the expanded use of instalment credit as a means of raising American living standards. Regarding those who still shy away from buying on time, Otter said:

"These families needlessly deny themselves the ordinary material comforts of American life, foolishly lowering their living standards, having been taught often from childhood that cash on the line is the only sensible way to buy."

Pointing out that the research department of the foundation is combating "misunderstanding, purposeful bias, and baseless fear of consumer credit," the report noted that teachers have told generations of Americans to avoid debt, particularly of the instalment type.

"Preachers from 10,000 pulpits have, from time to time, followed the same line," the report continued. "Movies, radio and TV shows, cartoons, and theatrical performances frequently attempt to make the instalment buying public look ridiculous. Magazine articles and public addresses have condemned instalment credit."

"An important result of our research is the growing public certainty that buying on the instalment plan is not a matter of going into debt, that, on the contrary, it actually constitutes a form of savings."

The foundation will promote the message that the better instalment credit is understood by the public, the greater will be its intelligent use, according to Otter.

The report criticized the now-defunct Regulation W, the Federal Reserve Board, and businessmen who see competitive advantage in credit regulation, "knowing it will operate more drastically on others than themselves."

Regulation W was pictured as having jeopardized private industry for 10 years before it was suspended and authority for administering it re-

voked by Congress. But the threat of reimposition of the regulation "still hangs over our heads" and serves to disrupt production, distribution, and retailing plans, the report declared, adding:

"It is impossible to lay out sound, long-range production and distribution schedules when enterprise does not know from day to day whether or when large segments of the public may be denied the right to buy its products."

Referring to the Federal Reserve Board, Otter said he had no doubt that the board "issues data with pontifical certainty and constantly confuses the American reader with its figures on instalment credit."

The board has been criticized repeatedly by the credit industry on the ground that its figures on consumer credit outstanding were not accurate. After protests by the foundation last year, the board acknowledged errors in its data and reduced its consumer credit total by nearly \$2,000,000,000.

Otter noted that the board was circulating for study and comment a new statistical formula to make its consumer reports more accurate and that the foundation would submit suggestions on the formula.

### Button Reminds Wives That Husbands Can Win New Suit

EVANSVILLE, Ind. — Wives of sales managers and salesmen of Servel, Inc.'s distributors nearly dropped a stitch recently when they received a letter from Dave Patterson, the company's sales promotion manager, who is running a "Suit Yourself" water heater sales contest.

Patterson tipped a button on the letter which began, "He can't go around wearing just a button..."

The letter continued, "Wouldn't you feel proud to see your husband all decked out in the brand new suit that goes with this button?"

He reminded the wives that a \$100 custom-tailored suit was one of the prizes in the contest.

Contestants can win the suit, a topcoat, two-suit bag, sportcoat, and slacks if they amass enough points based on sale of Servel Copper-Ball and galvanized water heaters to their dealers.

The contest continues to May 15.

**THE MOST ADVANCED FILTER-DRIER EVER DEVELOPED**

**REMCO'S SUPER-FLO**

with Molded Remcal Drying and Fiberglass Depth Filtering

### Check Super-Flo advantages against any other liquid-line filter-drier

**DEPTH FILTERING:** A massive fiberglass bag, with unsurpassed depth filtering efficiency, removes unprecedented quantities of even the most minute foreign particles. As a safety bonus, a 30x150 mesh Dutch weave outlet filter stops all particles larger than .0046".

**MOLDED DRYING:** The famous molded Remcal drying element is unexcelled for permanent refrigerant drying, even at liquid-line temperatures. Strong and stable, it will not dust or powder.

**NO PRESSURE DROP:** Ingenious design of flow channels and flow graduators and availability of the entire length of the massive fiberglass bag for filtering completely minimize pressure drop.

**AMAZING PRICE:** Check Super-Flo's price, for both original equipment and replacement, against ordinary driers which do not have massive depth filters, molded drying elements and spun-end copper shells. You'll be amazed.

**TROUBLE-FREE LIFE:** The leak-proof, rust-proof copper shell with spun ends insures maximum protection against refrigerant leakage, and guarantees long service.

1/4 Thru 5 hp.

Available to the trade through wholesalers everywhere.



**Mouldings are Silent Salesmen**

**JOHN LEES**

MOULDINGS, STAMPINGS, ASSEMBLIES. Complete Facilities for Buffing, Electrolytic Polishing, Welding, Forming and Aluminum Anodizing.

Mouldings by John Lees do a steady job of selling both before and after the sale is made. Stainless steel remains handsome, keeps your products looking good all the time. Let mouldings by John Lees help sell your product and keep it selling. Write for catalog.

**JOHN LEES**

DIVISION of THE SERRICK CORPORATION  
Kilgore Avenue, Muncie, Indiana, U.S.A.



**THIS APPEAL  
IN THE Post  
WILL MAKE SALES  
IN YOUR STORE**



Here's the whole story, the rich, full-color picture, of the unmatched luxury and convenience which Inland "Magic Touch" Ice Cube Trays provide in any kitchen, any home. See it, read it, as it will be seen and read by your customers and prospects in The Saturday Evening Post.

It's one of a series, appearing throughout the best refrigerator sales season. All advertisements will tell the *complete* Inland sales story . . . and *always* in full color, for maximum sales effect. And YOU will get that sales effect . . . in YOUR store!

*There's another Inland Ice Tray advertisement, also to appear in the Post, on the next page. Look at it. Read it. And see the SALES-BUILDING suggestions!*

**ICE CUBES !**  
*Easier!*  
*Faster!*



*And gay colors in*  
**INLAND TRAYS !**

HERE'S THE EASIER, faster way to get ice cubes . . . a few or a trayful. It's a truly amazing convenience . . . possible only with Inland "Magic Touch" Ice Trays.

Lift! Tilt! That's all there is to it. Then lift out one or more of the big, sparkling cubes, and leave the rest in the grid and tray . . . for later. It's simple as can be!

Inland "Magic Touch" Ice Trays are made in alluring colors now . . . blue or gold, as well as aluminum, to

suit your fancy . . . a gay note in kitchen decor! Get them at your dealers, to replace the outmoded trays in your present refrigerator. And when you buy a new refrigerator . . . for the ultimate in ice cube convenience, be sure it is equipped with Inland "Magic Touch" Trays. Just ask your dealer for them.

INLAND MANUFACTURING DIV.  
General Motors Corporation, Dayton, Ohio



*"Magic Touch"*  
**ICE CUBE TRAYS**





*Now!* **INLAND TRAYS**  
*in Gay Colors!*



*give*  
**ICE CUBES**  
*easier, faster*

**Y**OU'VE NEVER DREAMED of such astonishing ice cube convenience! It's so much easier, faster . . . getting as few or many cubes as you want from an Inland "Magic Touch" Ice Tray.

Lift! Tilt! It's just that simple. There's a whole row of big, sparkling cubes . . . free, dry, supported by the grid. Use some now, the rest later. How's that for convenience?

Inland "Magic Touch" Ice Trays are made in alluring colors now . . .

blue or gold, as well as aluminum, to suit your fancy . . . a gay note in kitchen decor! Get them at your dealers, to replace the outmoded trays in your present refrigerator. *And when you buy a new refrigerator . . . for the ultimate in ice cube convenience, be sure it is equipped with Inland "Magic Touch" Trays. Just ask your dealer for them.*

INLAND MANUFACTURING DIV.  
General Motors Corporation, Dayton, Ohio



*"Magic Touch"*  
**ICE CUBE TRAYS**

**A SINGLE MINUTE  
OF DEMONSTRATION  
CAN START  
AND CLOSE A SALE  
FOR YOU**



**COLOR!** Your prospects will see that, of course, as soon as you open a refrigerator door. Women *want* color, especially in their kitchens. Slip out an Inland Tray. Just let them *see* it . . . in softly gleaming gold, or lustrous, alluring blue. They'll see it *in their own kitchens!*

**LIFT! TILT!** Put the Inland Tray, filled with ice cubes, before your prospects. **LIFT** the lever . . . and **TILT** the grid! That's all there is to it . . . a *complete* demonstration of **PERFECT** ice cube convenience. And possible **ONLY** with Inland Trays!

**Sell Inland Trays as REPLACEMENTS** for present trays that are outmoded, battered, inconvenient at best! And be **SURE** that your **NEW** refrigerators come equipped with Inland Trays. You **CAN** have them!





## TELLING and SELLING

A guide to smart advertising and merchandising practices.

This series of articles comprising ideas and principles for the small retail or manufacturing business is written by James D. Woolf, who was for more than 20 years a vice president and director of J. Walter Thompson Co., one of the largest advertising agencies.

By James D. Woolf

### Folly of Advertising Just To Keep Your Name Out Front

Seven years ago a client of mine sold nearly 30,000 no-battery flashlights by mail, at \$4.95 each, through the medium of a few 8-in. advertisements in four or five national magazines.

This morning, 81 months after the appearance of the first ad, he got an order and a check for \$4.95, together with a letter from a man in Johnstown, Pa. Said the letter:

"About seven years ago I read with interest the enclosed ad, tore it out of a magazine, and filed it away against some possible future need. Now I'm in the market for your product. I have a new outdoor job, one that requires me to do a lot of night driving, and I figure that your no-battery flashlight will be just the thing to carry in the glove compartment of my car. Hope you can fill my order."

I asked my client if he got many such belated orders, and he said that he did. At my request he checked back on this particular ad, and he found that 65% of the orders he has received up to now came within 30 days after the issue date. The remaining 35% have been trickling in slowly but steadily since March, 1946.

"If my figures are correct," said this advertiser, "I have sold more than 10,000 of the lights after the first month's rash of orders."

In this column I have frequently contended that sales—and not merely "keeping your name before the public"—is, except in special situations, the proper objective of advertising. I did not originate this point of view and I am not unique in upholding it. I believe it is subscribed to by most successful advertisers and advertising men. But there are some who scoff. They insist that advertising is primarily an instrument of reminder-ship, of keeping one's brand of one's business in the public eye.

These scoffers maintain that only rarely does any given ad effect, under its own steam, enough sales to justify its cost. "It's silly to bookkeep advertising on this basis," argue these unbelievers. "The place where the consumer is separated from his money is in the store. Why not face the fact that advertising is primarily a lubricant that accelerates the transaction at the counter?"

These doubters believe that few people read advertising anyway, especially if the copy presents sober, hard-hitting, reason-why arguments. Most people hate to be bored by such tedious stuff. They like advertising that is clever and cheerful and a bit on the amusing side. "For example," they say, "take those five cute FIRE CHIEF puppies. Maybe they aren't salesmanship in print, but they certainly are a mighty

catchy way to keep the FIRE-CHIEF name before the public."

I have never contended that advertising can always be bookkept on the basis of immediate sales. Except in unusual cases, perhaps relatively few, I do not believe that droves of people, wads of money clutched in their fists, go panting into stores after being fired up by an ad or a radio broadcast. I don't believe advertising works that way. But I do feel that it is the real function of advertising to make sales—under its own head of steam.



(Advertising can't be gauged by immediate sales.)

My simile isn't entirely pat when I say that sales-making advertising works somewhat after the manner of a delayed-action time bomb. But it's close enough. And this brings me back to the mail order from the Johnstown man who waited seven years until he was "in the market for your product."

If you can accept the thesis that a substantial percentage of those people who see or hear your advertising are actively in the market now or LATER, you will see the good sense of selling as hard as you can. It is my notion, with reference to this "in the market concept," that consumers fall roughly into four general groups, as follows:

Group 1: Persons actively in the market at the very moment they are exposed to the advertiser's selling message. Example: Henry Smith has definitely decided to buy a new shotgun tomorrow, or a new outboard motor, or a new disc plow, or whatever. Hence he will be "good huntin'" for any advertising guns that are aimed at him today.

Group 2: Persons not actively in the market at the moment for certain things, but who know they will be in the not too distant future. Example: John Brown knows now that his house must have a new roof not later than 1954. Therefore, he finds himself reading ads of roofing materials. There is every possibility that

one of the ads he may read today will sow the seed that will blossom into a sale later. But not if the ad is merely a meaningless reminder.

Group 3: Persons not consciously in the market—now or later. They are not alive to certain problems in their lives, hence are not actively looking for solutions and satisfactions. Example: Women were almost totally blind to their need for underarm daintiness prior to the introduction of Odo-ro-no, the first perspiration deodorant. "Keeping your name before the public" will not create markets for products people do not know they need.

Group 4: Persons completely out of the market for one or more of a number of reasons. Example: An ardent prohibitionist is most unlikely to be influenced by advertising of alcoholic beverages.

It is true, of course, that many categories of merchandise are universal, or nearly so, in their usefulness. Practically everybody is continuously in the market for the small necessities of life, such as sugar, salt, and toilet soap; and for the small everyday luxuries, such as beer and soft drinks, cigarettes, and candy bars.

But it does not follow that Mrs. Brown is actively in the market for one of these small products on the very day she is exposed to your advertising message. In her pantry, for example, is a case of the family's usual soft-drink, or perhaps of beer, and she may not be ready to buy again for another 10 days or so.

Is this fact a valid reason for not giving her the full treatment with a delayed-action time bomb? That new roof John Brown will have to buy in



(Some people are completely out of the market.)

1954 may be sold to him tonight by salesmanship in print.

In short, nearly all people—with the single exception of Group 4—are in the market for the products or service you advertise. If they are in the market, it follows that, soon or late, a reasonable number of them can be sold by selling copy. If this proposition is sound, it is folly, as I see it, to spend your advertising dollars just to keep your name before the public.

Write your copy on the assumption that some day, if not today, the people who see your advertising will be in the market.

### 20,000 Attend Dealer's Free Barbecue Picnic

ATLANTA—A free barbecue and entertainment drew more than 20,000 people to the lakeside farm of Frank Hodges, owner of Hodges Appliance Co. here.

Open to the public and advertised over the radio for a month in advance, the barbecue was the best attended promotion of this sort that Hodges has ever conducted. It was intended to build goodwill for the firm and create potential customers.

Running from 1 to 6 p.m., the barbecue featured 20 groups of entertainers, mostly providing musical diversion. The affair was attended by the mayor of Atlanta and several city councilmen. A radio broadcast was conducted from the picnic grounds and a benefit to raise funds for the Rockdale Health Center was staged.

Similar entertainments with the emphasis on hillbilly music and square dancing are a regular part of Hodges' promotional program. A three-hour radio show on Saturdays also features hillbilly music.

### Kelly Named Manager of GECC Des Moines Office

KANSAS CITY—George R. Kelly has been named manager of General Electric Credit Corp.'s Des Moines office according to P. G. McCully, Kansas City district manager.

Kelly is a graduate of Texas State Teachers college. He has been with the company since 1947 and was formerly credit and collection manager in the Kansas City office.



Must See

## JORDON

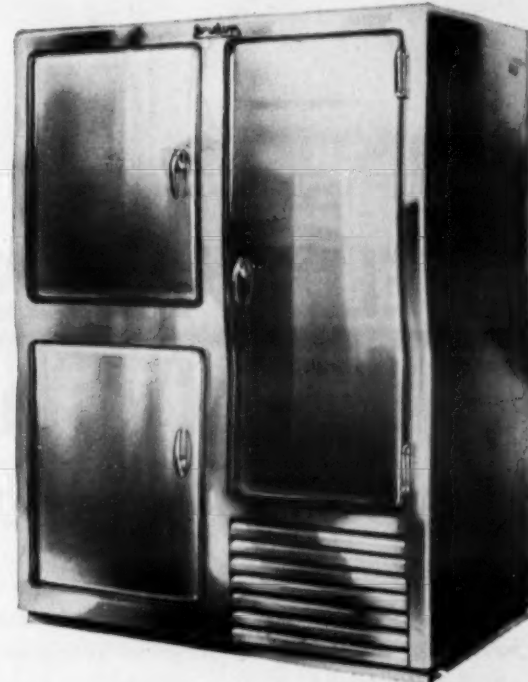
at the  
Restaurant  
Exposition!

The only complete  
line designed for  
modern restaurant  
operation! See it in  
Chicago... Booths  
#544-545, Navy  
Pier. May 11-15.

### REACH-IN REFRIGERATOR

MODEL S40JFC

with exclusive Jord-O-Matic blower coil that keeps food fresher longer! Height 71". Width 58 3/4". Depth 33" including heavy-duty hardware.



### 4 1/2 SLIDING DOOR WALL CASE

MODEL S-4 1/2

Gives you 25% extra inside space with no increase in floor space needed! Available with solid or thermopane glass doors. Height 71 1/4". Width 53". Depth 30".

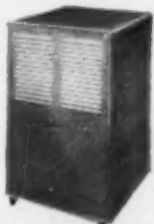


NEW! UPRIGHT FOOD FREEZERS!

"STORE MORE" UPRIGHT FREEZER holds nearly 1100 lbs. of food.

DISPLAY FREEZER

DRY BEVERAGE COOLER



DEHUMIDIFIER

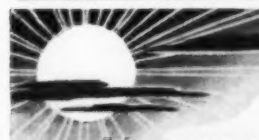


ROOM AIR CONDITIONER

If you don't plan to attend the Exposition  
PHONE, WRITE or WIRE  
for information!

## JORDON REFRIGERATOR COMPANY

58th & GRAYS AVE., PHILA. 43, PA. • BElgrade 6-6510



## Get it!

**HARRY ALTER'S**  
SPRING and SUMMER... No. 158

# DEPENDABOOK

Illustrates, Describes, Prices  
Over 9,000 REFRIGERATION  
Television, Radio, Heating,  
Electric Motor, Air Conditioning  
PARTS and Supplies

Yes, get it and save money!

Write Now to

**The HARRY ALTER CO. Inc.**

1728 S. Michigan Ave., Chicago 16, Ill. • 134 Lafayette St., New York 13, N. Y.

HARRY ALTER gives you snappy service!



## 855 Architects Compete In Carrier Home Contest

NEW YORK CITY—Eight hundred and fifty-five architects, architectural draftsmen, and students of architecture, representing every state in the nation, have submitted entries in the Carrier Weathermaker Home Competition, it was announced by Harold R. Sleeper, F.A.I.A., professional advisor to the competition.

The competition, sponsored by Carrier Corp., will pay cash prizes totalling \$27,800. Its purpose is to stimulate the production of new designs for year-round air conditioned houses which can be constructed by home builders.

"The tremendous interest in this contest for homes designed around air conditioning is unprecedented in architectural competition," Sleeper said.

"It indicates the sudden new acceptance of residential air conditioning, and may well serve to develop a new direction in houses and designs for home builders."

The contest entries will be judged by a jury consisting of three members of the American Institute of Architects, a builder, and a housewife. Awards will be based on esthetic considerations—stress on good planning for house and site, suitability for use in a home builder's development and skill in achieving economies in plan, design, and equipment due to the factor of year-round air conditioning, it was explained.

Prize winning entries will be published and offered by Carrier Corp. to builders, contestants, and the general public.

## N.J. Law Aimed at Ending Abandoned Ice Box Hazard

TRENTON, N. J.—Gov. Alfred E. Driscoll of New Jersey has announced he has signed legislation to help local police attack what he called "the abandoned ice box hazard."

He said the new law makes it an offense under the disorderly persons act to abandon or discard a refrigerator or ice box in any place accessible to children.

Gov. Driscoll said: "This new law, prompted by a series of tragic accidents, will enable local police departments to exert a measure of control over the abandoned ice box hazard."

## Supreme Supply Named As Servel Distributor

EVANSVILLE, Ind. — Supreme Supply Co. of Inglewood, Calif., has been appointed as a new distributor of Servel air conditioning equipment for the Southern California area, it has been announced by John A. Gilbreath, assistant vice president in charge of Servel's air conditioning.

Supreme will handle Servel's "All-Year" air conditioning equipment, "Wonderair" room air conditioners, and water heaters.

The trading area covered by the new distributor includes the following counties: Imperial, San Bernardino (southern half), Los Angeles, Orange, San Diego, Riverside, and Ventura.

Supreme's officers are Carl Kriwanke, president; Frank M. Kriwanke, vice president; and Wesley Humphries, secretary-treasurer.

## Heart Attack Kills Emerson President

ST. LOUIS — Oscar C. Schmitt, president and director of The Emerson Electric Mfg. Co. here, died recently after suffering a heart attack while discussing business affairs with associates.

Schmitt was born in St. Louis in 1894, attended St. Louis public schools, and, after two years with other business houses, became an office worker for Emerson-Electric in 1910.

He has been associated with the company continuously since that date in numerous sales and executive capacities.

Schmitt was elected a vice president in 1936, and a director in 1938. Later, in 1940, he became executive vice president in which capacity he continued until he succeeded Stuart Symington as president of the company in July, 1945.

## Robbins Opens Sub-Office For Trane In Fargo, N.D.

ST. PAUL, Minn.—William McNamara, manager of the local sales office for The Trane Co., has announced the opening of a new sub-office at Fargo, N. D.

George W. Robbins has been appointed manager at the new office, located at 115 Roberts St. He is a mechanical engineering graduate of the University of Minnesota and of the Trane Graduate Training Program of 1950. Robbins was previously associated with The Trane Co. sales office here.



## SUGGESTS CODE TO TELL WHAT PRICE INCLUDES

Landis Electric Co.  
Lancaster, Pa.

Editor:

There seems to be a need for some code word to describe what list prices include.

Most manufacturers set suggested list prices on their appliances and show that it includes installation. I have such a price sheet in front of me right now. This price sheet shows suggested list prices on electric refrigerators, freezers, electric ranges, laundry equipment, and room air conditioners. All are marked "Installed, cash price, including warranty."

The question is whether installation includes receptacles, plumbing for automatic washers, pigtailed for electric ranges, and complete installation of air conditioners. Of course they don't include many things necessary to have these appliances working in the homes. For instance this same manufacturer suggests \$20.00 extra for installing an air conditioner but this is shown only on a cost sheet. The list sheet says prices include installation.

Why couldn't the industry use something like FOB or COD to describe what a price includes? There doesn't seem to be any one word to describe it. Suppose a code word like WCPI were used meaning "warranty-cash-partially installed." Perhaps SPIC would do it, meaning "serviced-partially installed-cash."

By using "partially installed" the customer would inquire what is meant and the salesman could explain it. It would avoid many misunderstandings with customers.

Would you give this some thought? Perhaps a little publicity on this would bring some good suggestions.

HARRY H. LANDIS, Jr.,  
President

## IF IT'S WHISKEY, IT AIN'T SCOTCH

The Trane Co.  
La Crosse, Wis.

Editor:

Your publication is very much enjoyed and about the first thing which draws my attention is "Inside Dope." In your Feb. 22 issue you have a note about the British being sore about the "imitation-Scotch-Whiskey" being marked "Made in Scotland, England."

One can tell that this really is imitation-Scotch-whiskey because all real Scotch Whisky is spelled WHISKY not WHISKEY.

E. TED NEUBAUER

## EDITORIAL SEEN AS AID IN CLEANING UP MARKET

Arnold-Brown Metals & Supply Co.  
Birmingham, Ala.

Editor:

As quality distributors of two major lines of air conditioning equipment, we want to commend you on your editorial of Feb. 23 titled "Beware the Ides of March."

In your editorial you have covered completely the evils that we as distributors have been encountering in attempting to keep a clean market.

Will reprint copies of this editorial be available on quantity basis?

R. E. CLARKSON

## 'ONE OF THE FINEST . . .'

Universal Distributing Co.  
Meriden, Conn.

Editor:

It's a pleasure to pay for such an outstanding publication. It's one of the finest books of its type I've ever seen. The author of "Both Feet on The Ground" should rate sincere congratulations.

WALTER SERURAN

## READER IN TROPICS SEEKS PLAN FOR FREEZER ROOM

College of Agriculture  
University of Philippines

Editor:

In the hopes that some of your readers may have a practical solution to tropical refrigeration problems, I am writing this letter.

Due to lack of freezing facilities

in the markets, it is most necessary here to have private freezing and storage space for fresh meats and vegetables. The maximum temperature is about 32° C., the minimum yearly temperature being 22° C.

Is there available a plan for building a small freezing and storage room, of moderate cost, in which meats may be frozen and stored, and in which such vegetables as potatoes may be stored at keeping temperatures. Due to high water tables, it is not practical to build such units underground, and our best building material here is hollow concrete blocks.

I would appreciate any ideas which your readers would care to share with us.

L. W. MIRANDA

## MORE BECOMING AWARE OF PUBLIC POWER EVIL

Florida Power & Light Co.  
Miami 30, Florida

Editor:

I was very happy to read your editorial "Cause for Alarm" in the March 9 issue of AIR CONDITIONING & REFRIGERATION NEWS. More and more people are coming to realize what the Federal power program really means and a forthright statement like your editorial helps spread the word.

Again, congratulations on this splendid editorial.

ROBERT H. FITE

## Worthington Leases Space In New N. Y. C. Building

NEW YORK CITY — Worthington Corporation has become the first tenant to lease space in the new 26-story, aluminum-faced office building under construction at 99 Park Ave. here, it was announced recently by Norman Tishman, president of Tishman Realty & Construction Co., Inc., owner-builder of the skyscraper.

The lease, which was negotiated by Cushman & Wakefield, Inc., agent for the new building, calls for long term rental of the entire 20th floor, comprising approximately 12,350 net sq. ft., to house the executive and sales offices of the company.

## JUST ASK US!

Turn to "What's New" Page for useful information on new products.



## NEW '53 US AIRCO WINDOW TYPE ROOM AIR CONDITIONER

✓ Thermostatic Control At No Extra Cost! ✓ 5 Year Warranty and Labor Allowance! ✓ 3 Sizes: 1/2 h.p., 3/4 h.p., 1 h.p. ✓ Smart, Compact Cabinet! ✓ Adjustable Louvers!

For details write Dept. AC 553

UNITED STATES  
AIR CONDITIONING CORPORATION  
MINNEAPOLIS 14, MINNESOTA

## IDEAL Speed-Freeze PRODUCTS

BEVERAGE COOLERS AND  
INSTANTANEOUS DRAFT  
BEER COOLERS.  
(With Refrigerated Faucets)

WRITE

IDEAL COOLER CORPORATION  
2953 EASTON AVE. — ST. LOUIS 8, MO.

over **2,750,000**  
**MUELLER BRASS CO. driers**  
**have been installed!**

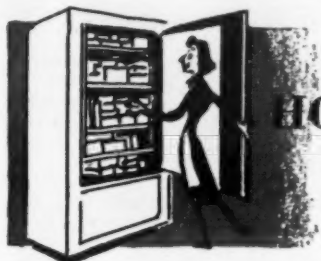
**AND WITH GOOD REASON . . .**

To date, more than 2,750,000 Mueller Brass Co. Driers have been installed in commercial refrigeration systems all over the world. The completely satisfactory service they have given wherever they were installed is proof enough that you just can't buy a drier anywhere at any price that will keep your refrigerant so thoroughly dry, so scrupulously clean and free from foreign matter. • Many extravagant claims are made regarding the moisture absorbing capacities of desiccants. The property that is most important to the refrigeration industry is not the total amount of water that a desiccant will absorb, but rather it's the *end-point dryness* of the refrigerant that really counts.

End-point dryness is the amount of moisture left in the refrigerant after the drier has absorbed its capacity. Tests prove that Silica Gel has the capacity to absorb and hold twice as much moisture, by weight, as other commonly used refrigeration desiccants while maintaining a fixed end-point dryness. Hundreds of thousands of Silica Gel granules manufactured to a special size and sealed into a 12 cu. in. Mueller Brass Co. Deluxe Drier provide over 600,000 sq. ft. of the best drying surface you can get—more than enough to keep your refrigerant thoroughly dry at all times. Mueller Brass Co. Driers are available in capacities from 3 cu. in. to 242 cu. in. Order now from your refrigeration wholesaler.

**MUELLER BRASS CO. PORT HURON 9, MICHIGAN**





## HOME & FARM FREEZERS



### Dept. Store Sees Freezer Plan as 'Bright Spot' In 'Discouraging' Profit Picture

By John O. Sweet & George M. Hanning

LAFAYETTE, Ind.—The freezer-food plan is a bright spot in an otherwise rather discouraging picture for the appliance department of Loeb's department store here, according to Jack Alexander, merchandising manager.

Alexander is somewhat pessimistic about the appliance outlook in general because of "low" margins on high-saturation items and price cutting. He feels that these and other factors could well prove disastrous for department store appliance sections.

He pointed out that one department store in the area has dropped appliances and television and another is handling these products at no profit.

Manufacturers have done a good job this year in improving their products, Alexander noted. But, he stressed, margins are too low. The cost of doing business has been increasing but there has been no proportionate boost in margins, he asserted.

"The department store must think in terms of profit, not volume," he commented. "Volume doesn't take care of everything."

For this reason, the store is not going to try to compete with price-cutters but to promote what can be sold profitably, Alexander said. He explained that this means the appliance department will push low-saturation items such as dryers, dishwashers, and garbage disposers, and put special emphasis on its freezer-food plan.

The Loeb official is an enthusiastic believer in the sales potential for this plan. He thinks it has great possibilities if properly merchandised.

#### SPECIALTY SALESMEN NEEDED

Alexander is of the opinion that the plan can be most effectively sold by people other than regular appliance salesmen because specialty selling is required. The selling experience of appliance salesmen, he said, is based largely on product alone, whereas freezer-food plan selling calls for a good deal more than that.

In line with this thinking, Alexander recently retained a former professor at Purdue university to supervise the store's freezer-food program. He is Ralph Lawson, who was later named appliance department manager.

Listing other essentials of a successful plan, Alexander said the operator must handle a quality freezer, have honest salesmen who

won't misrepresent the plan, have a good, dependable source of food, and offer a good method of financing the initial purchase and re-financing future food reorders.

Loeb's plan was inaugurated last year and has been extensively promoted since then. The store handles its own paper. Its food source is a small independent grocer who has a reputation for cutting high-quality meat.

Alexander and Lawson gave these other details of Loeb's plan:

No down payment is required. A charge of 6% is made on the unpaid balance. Payment in 90 days is considered cash. Two separate contracts are used, with the food being paid off in six months and the freezer in 12, 18, or 24 months.

#### LOEB DOESN'T OFFER 'PACKAGED' DEAL

Loeb's plan is not a "packaged" deal; that is, the customer is not required to buy any specific amount or kind of food. The store recommends that he purchase a six-month supply but it is up to the customer to decide how much food and what kind he wants.

Salesmen offer to figure out with the customer how much food he has been using in the past in order to determine what quantity would best suit his needs. If the customer's needs can't be determined in this way, U. S. Department of Agriculture figures are used. A "suggestion chart" is also shown customers to help them make out their orders.

Furthermore, if a customer finds he doesn't like certain frozen foods he has purchased, he can exchange them for some other kind. Meats are cut and packaged to customer specifications.

#### STORE OFFERS TO TAKE FREEZER BACK AFTER 30 DAYS

As an additional incentive to prospects, the store offers to take back the freezer at the end of the first month if they are not satisfied. The only charge made in such cases is for the food consumed.

In its advertising and promotion, Loeb's makes no specific claims on savings possible through the plan. It maintains that some savings can be realized in family food bills but that more important, the freezer will enable the owner to eliminate food waste and impulse buying of unneeded foods and prove to be a great convenience and benefit in other ways.

The store doesn't aggressively promote food re-orders—"just enough to keep the grocer happy."

The department store has used a variety of methods for securing leads. The most productive source, according to Lawson, was a local home show.

#### TALKING TO PROSPECT IN HIS HOME EMPHASIZED

Lawson claims that if he can get into a home and talk with the owners, he can sell the plan without fail. He cited instances of people who told him they absolutely were not interested in the plan.

"But when I was able to talk to them in their homes, they bought."

So the big problem presented by the plan, Lawson concluded, is not to find prospects but to find an effective means for being allowed to talk to prospects in their own homes. Once a person tries the plan, he becomes an enthusiastic believer in it, Lawson has found. Discussing other phases of the store's appliance activities, Alexander pointed out that in advertising, Loeb's tells people the store won't give them "\$100 for your old appliance regardless of condition," but will provide quality products and service for as long as needed. Loeb's has its own service setup.

Alexander also noted that department stores must "spot buy" appliances. He doesn't recommend this policy for specialty dealers but says the public expects to find a variety of brands in a department store.

He further observed that it's now necessary to go to the people to sell since promotional "tricks" are not bringing them into the store.

Another of Alexander's views was that there is plenty of room for improvement in training of retail salesmen. In this connection, he noted that one supplier had done an excellent job at a recent sales meeting. He said the meeting was conducted without "fanfare" but with specialty personnel giving salesmen a good product pitch.

"Knowledge of product is essential," Alexander remarked. "No matter how much advertising you do, it won't help the retail salesman close a sale unless he knows his products."

Incidentally, Alexander has invited suppliers to hold sales meetings in the employe restaurant in the basement of the store. Explaining that local and nearby dealers usually have to go to Indianapolis for supplier product and sales presentations, he said use of the store's facilities would make such trips unnecessary.

Alexander would like to see more emphasis by suppliers on advertising via television. TV advertising, he claims, "has great appeal and is very effective."

Too, he thinks dealers should be able to rent operating displays, and buy display material cooperatively when several in an area are handling a particular line.

"When the margins are not there, we must save some way."

Further, Alexander feels that products shouldn't be shown before they are available to dealers, that distributors should carry stocks adequate to take care of dealer needs, and that they shouldn't try to sell all they can to a dealer without regard for future sales possibilities.

#### 'Can Cut Food Bills'

### Need for Better Service, Good Food In Freezer Plans Cited by Institute Study

NEW YORK CITY—Freezer-food plan customers can reduce their food bills 15%, on the average, through quantity purchases at a discount, in the opinion of George G. Cook, head of the frozen foods department of Long Island Agricultural and Technical Institute, Farmingdale, L. I., N. Y.

However, he pointed out to the Electrical Women's Round Table Workshop held here recently, the majority of the housewives contacted by the institute said the plan did not save them anything. Nevertheless, they felt that the freezer was well worth the cost because of its convenience, he said.

Discussing "The Pros and Cons of The Food-Freezer Plan for the Consumer," Cook expressed a belief that the plan is here to stay. But, he cautioned, freezer-food firms who want to stay in business must provide a good freezer, good food, and good service at a fair price.

Emphasizing the need for better service, Cook asserted that many freezer-food plans have failed because operators neglected to provide proper customer service. He said operators should send a qualified representative to patrons' homes to show them how to process, package, and use frozen foods.

Better service would also help eliminate some of the "fly-by-night" operators, he declared.

Cook told the home economists: "You, as representatives of many appliance concerns, could help the

consumer by insisting that your freezers be sold only by reputable food plans.

"At present, we at Farmingdale may get complaints about outfits that apparently are riding along on the reputation of the freezer they sell. This could counteract some very fine advertising."

Cook cited a number of complaints received by the institute or revealed through studies, regarding individual plans. One of these, he said, is that some operators charge as much as \$75 to \$125 more for their freezers than appliance dealers.

Another complaint is that charges for plan credit are much higher than standard bank credit. Many customers could save money by doing their own financing, but most plan operators apparently don't favor this arrangement, according to Cook.

The speaker also noted criticisms of highly exaggerated statements by salesmen and in advertising and promotion. He noted, too, greatly exaggerated saving claims. He said it was very doubtful that advertised savings of 25 to 35% could be realized when over-all markup runs from 18 to 23%.

Cook added that since some of the freezers sold through food plans are made by relatively unknown companies, consumers should check on the product before buying.

Despite these and other complaints of particular plans, many operators are doing an increasingly better job of selling and servicing, Cook stated.

For the  
first time

# Tecumseh offers

## REMOTE UNITS

IN A COMPLETE RANGE OF SIZES FROM 1/4 to 15 H.P.



For remote units up to 15 H.P., investigate this new, improved Tecumseh line now available to the jobber trade. The medium range (3/4 to 3 H.P.) incorporates the recently developed series of "V" type compressors and the new FFP with oil pump (3/4 H.P.). These compressors are designed for maximum efficiency, lower cost, compactness of size and increased capacity. All of these factors are powerful selling points for you when selling these units to the field. The lower range (1/4 to 3/4 H.P.) and the high range (5 to 15 H.P.) use the dependable 1400, 1000, R & S compressors.

Included in the remote line are air cooled models from 1/4 to 3 H.P., combination air-water cooled models from 1/2 to 3 H.P. and water cooled models from 1/2 to 15 H.P.

The complete line also includes hermetics from 1/8 to 1 1/2 H.P. and self-contained units from 1/4 to 3/4 H.P. Look to Tecumseh for a complete line of quality units for all of your refrigeration requirements up to 15 H.P.

For full information write:

**TECUMSEH PRODUCTS**  
TECUMSEH, MICH. *Company*

EXPORT DEPT.: 2111 WOODWARD AVE., DETROIT, MICH.

The world's largest  
producer of condensing  
units for the re-  
frigeration industry.

#### CLEANABLE WATER-COOLED CONDENSERS

More Efficient Double-Tube  
Counter-flow Design

1/2 to  
25-Ton  
Capacity



Acceptance in the field is rapidly changing to "Demand" for these efficient, more economical Cleanable water-cooled Condensers. Owners and service men prefer the "new unit" efficiency that can always be maintained by a simple cleaning process. Brass headers, machined and brazed.

Write for Catalog and Prices  
WHOLESALE IN PRINCIPAL CITIES

**Halstead & Mitchell**  
BESSEMER BLDG. PITTSBURGH 22, PA.



## They'll Do It Every Time . . . . By Jimmy Hatlo



Have You READ 'Peace and Progress' Yet?

YOU ARE LOOKING AT

# the greatest sales opportunity

IN AIR CONDITIONING TODAY!

**TYPHOON**  
Heating-Cooling Units for the Home



Residential air conditioning is the biggest thing that ever hit the industry . . . and Typhoon dealers are cashing in on it hand over fist. Because Typhoon has just what home-owners and builders want — one central unit that air conditions the entire home summer and winter. And it's the most compact unit on the market—takes as little as 5 square feet of floor area! Tie up with Typhoon S-W units today.

### 44 YEARS OF COMFORT ENGINEERING IN THESE EXCLUSIVE TYPHOON FEATURES!

**ONLY TYPHOON** has completely automatic changeover design — one-button for switching from heating to cooling; no dampers to manipulate!

**ONLY TYPHOON** has an all-copper condenser—it defies rust and corrosion, gives trouble-free service.

**TYPHOON** is a miracle of compactness —takes up less space than any other unit, can even fit into a standard closet!

**SIMPLE TO INSTALL**—just a few quick

connections and within hours your Typhoon unit is ready to function.

**INEXPENSIVE TO OPERATE**—Engineered to the point of greatest economy consistent with dependable performance.

**QUIET**—Completely insulated heavy-gauge steel cabinet and floating spring base assure quiet operation.

**FACTORY TESTED**—Every unit is thoroughly checked for performance before shipment.



### A FULL line of Residential Models!

There's a Typhoon residential year-round unit to fit any specification. Oil or gas-fired, water or air-cooled, upright or counterflow—you'll always have the answer with Typhoon S-W Units!



### A TYPHOON FRANCHISE

is your key to this great new home market —write, wire, phone for information today.

**TYPHOON**

AIR CONDITIONING CO. INC., 794 Union Street, Brooklyn 15, N. Y.  
Specialists in Air Conditioning Since 1909

AN INTERNATIONAL INSTITUTION • SUBSCRIBERS ALL OVER THE WORLD

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Office  
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VOLUME 69, No. 1, SERIAL No. 1,259, MAY 4, 1953

"I have always felt that whatever the Divine Providence permitted to occur I was not too proud to report. The people are not served by pussyfooting, or by that sort of journalism in which nobody will ask who is the editor of a paper or the writer of an article, and nobody will care."—Charles A. Dana.

## Automotive Air Conditioning

For a great many years people in the air conditioning industry have been dreaming about the untapped automobile market.

Now it is a reality. And not just in Texas, either.

You can buy a fully air conditioned auto almost anywhere this year. On a 100-degree day you will be able to step into a 115-degree internal inferno of a car, touch a switch, and feel the temperature plummet to solid comfort.

GM's Frigidaire unit is available now (in limited numbers) on 1953 Cadillacs, Buicks, and Oldsmobiles. The Chrysler Airtemp unit is optional equipment on 1953 Chryslers, DeSotos, Dodges, and most Plymouth models. A Lincoln-Mercury air conditioning unit is due soon. Likewise, Packard (new President James Nance seldom sleeps nowadays, it is reported).

The quoted "around \$600" price tag may seem high at first glance. Texas citizens have been paying more, and willingly, for their locally installed jobs, however. And look: to be completely satisfactory, the auto air conditioner must produce four times as much cooling effect as a standard window air conditioner. Instead of being a compact unit, its parts must be scattered from radiator to trunk. Obviously, then, that price-tag is reasonable from an engineering and production standpoint.

GM's Frigidaire system and the Chrysler Airtemp unit differ in several respects, although they both accomplish the same purpose effectively. The Airtemp unit uses two condensers: a small one near the radiator, and a larger one below. The Frigidaire unit employs a single condenser mounted almost flush with the radiator.

Tests indicate that proximity of the condenser to the radiator does not appreciably affect the cooling characteristics of the car. The Oldsmobile, Cadillac, or Buick equipped with Frigidaire air conditioning, it is claimed, can idle 30 minutes in 100-degree outside heat without boiling.

Chrysler places its reciprocating four-cylinder compressor above the engine. Power is derived from the crankshaft. Frigidaire provides a two-vane rotary compressor, also situated at the side of the engine and driven from the crankshaft. The evaporator (cooling coil and dehumidifier) of both systems is under the rear shelf at the top of the trunk compartment.

A rough problem in designing motor car air conditioning is the time-to-cool factor.

Early experimental jobs required driving 20 to 30 minutes on a wilting hot day before the summerized auto became comfortable. Most trips to the office, or to a shopping district, ended in a parking lot before the air conditioning system got into action.

Experimental engineers have ended this excuse-for-not-buying. Chrysler's Airtemp, it is said, reduces a 120-degree inside-car temperature to 85 degrees in two minutes, and to 75 degrees in three more minutes. And the GM Frigidaire system, excellent tests reveal, is equally quick.

Chrysler Airtemp's duct for admittance of fresh air is on the rear package shelf. That same type of installation is available on Cadillacs. Neither system uses space regularly used by passengers.

As of now the biggest market for auto air conditioning is in the Southwest. But give the rest of us time. We'll want it, and have it, too!

To be somewhat corny, let us say that: Air Conditioning MARCHES ON.





PLAN of study for the class in refrigeration and air conditioning to be conducted by the Greater Chicago RSES chapter is mopped out by Ed Riccio, Robert Yeisley, and Barry Howe.

## Top Man In Chicago RSES Class To Win One-Yr. Technical College Scholarship

CHICAGO—Formation of a class in air conditioning and refrigeration that will lead to a one-year scholarship at a technical school here has been announced by the Greater Chicago chapter of the Refrigeration Service Engineers Society.

First class will be held April 24

and will continue on the last Friday of each month thereafter until a student with the highest grade is selected for the scholarship at Greer Technical college, according to the chapter's scholarship committee.

Committee members are Robert E. Yeisley, Ed Riccio, Al Dellheim, and Barry Howe. All are officers or directors of the chapter.

The classes, to be held at Riccio's Engineering Co., 3851 Harrison St. here, will be conducted by Yeisley with the assistance of other members of the committee. Yeisley is supervisor of refrigeration and air conditioning at the Greer school.

Members and families of RSES as well as friends recommended by members in good standing have been invited to attend.

The scholarship was made possible by the cooperation of Stanley Greer, vice president of the technical school, and will be known as the Chicago Chapter Marion Hanks Scholarship in honor of the late treasurer of the International RSES, who was a charter member of the San Diego chapter.

## Snell To Hold Open House In New Dallas Quarters

DALLAS—Snell Refrigeration Supply here recently moved to larger and more convenient quarters at 2900 Main St. at Oakland Ave. and will hold a formal open house May 9.

The company, which started its 10th year in Dallas on April 1, said the new central location plus a 45-ft. by 100-ft. parking area will make possible better service to customers.

"We are expanding our lines with additional items and will also increase our manpower and materials handling equipment to give faster, more complete service."

## 'Dril-Jak' Can Be Used for Drilling, Lifting, Bracing, Shoring, Weld Positioning, and Jacking



CLEVELAND—A "Dril-Jak" that enables a worker to exert force up to 2,000 lbs. where more than 100 lbs. pressure is required for drilling holes in concrete or steel, has been introduced by the Time Saver Tool Co., Inc. here.

A Universal drill motor clamp holds a regular drill motor with 1/2-in. or larger capacity for drilling in correct alignment. The mechanical friction grip action of the tool works like a simple lifting jack to force the drill motor ahead, giving maximum efficiency and cutting speed.

An instant pressure release works from the lift handle, thus providing one hand control. The tool can operate in confined space or can be extended to as much as 25 ft. with quickly coupled extension sections. It weighs 9 1/2 lbs., is 34 1/2 in. long, and has a maximum lift of 30 in.

Pressure pads for both pipe and shank ends are available for distributing the pressure over a greater area. Clamps for both pipe and shaft ends are also available for gripping and holding work when doing weld positioning, fastening, bolting, etc., during assembly operations.

Besides drilling, the tool can also be used for lifting, temporary bracing, shoring, weld positioning, or jacking to set permanent forms or braces.

The manufacturer says the tool, on which patents are pending, is already in production.

## Pre-sealed Insulated Pipe Described In Bulletin

WILLIAMSTOWN, N. J.—A four-page folder describing Durant pre-sealed insulated pipe for use in underground and weather exposed locations for carrying hot or cold liquids and gases has been issued by Durant International Corp. here.

Bulletin 6C gives applications information, special features and facts, field joint procedure, construction and fabrication data, and standard specifications. Illustrations and sectional drawings are provided.



Betz Names Caveny, Bunner

BETZ CORP. of Hammond, Indiana, announces the appointment of Robert T. Caveny (left) as secretary and treasurer of the company, and Don A. Bunner (right) as purchasing agent.

## Wolverine Tube Offices Established In Columbus

DAYTON—Sales offices for Wolverine Tube Div. of Calumet & Hecla, Inc., have been opened in Columbus by James A. Jolly, it was announced here by J. H. Smith, east-central district sales manager.

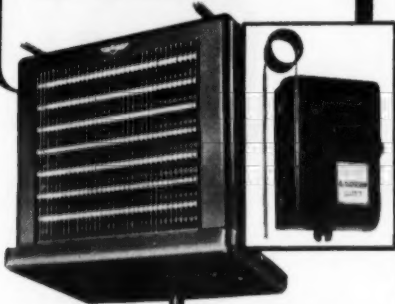
The new offices are located in Suite 1212, High-Long building, 5 E. Long St., Columbus 15, Ohio. The telephone number is Fletcher 5385.

## To Cool Industrial Building

DALLAS—Construction will start immediately on a 3,200-sq. ft. air conditioned office building for Clark-Cowden Production Co. and the Roy Guffey Drilling Co., to be located on Yale Blvd. between Central Expressway and Greenville Ave.

## LARKIN MEANS LOW OPERATING COSTS

FROST-O-TROL® AUTOMATIC HOT GAS DEFROSTER



The purchase price of any product is often misleading, for it precludes the cost of long-run operation. All Larkin products are engineered for the lowest possible operating costs, yet they are priced right. That's why Larkin leads the field for long-run, low-cost operation.

Manufacturers of the original Cross-Fin Coil • Humi-Temp Units • Frost-O-Trol Hot Gas Defroster • Evaporative Condensers • Cooling Towers • Air Conditioning Units and Coils • Direct Expansion Water Coolers • Heat Exchangers • Disseminator Pans.

WATCHDOG OF THE NATION'S FOOD SUPPLY

LARKIN COILS

519 MEMORIAL DR., S.E. • ATLANTA, GA.



Torch-o-matic saves time—saves gas! Just pull the trigger and air-acetylene gas automatically ignites—release trigger and gas shuts off instantly. No hazard from open flame when not in use. One-hand operation with no

"time-out" to light up and adjust. Pays for itself many times over in savings and convenience. Three sizes of tubes and nozzles take care of any job. Fits your present equipment. Write for complete details.

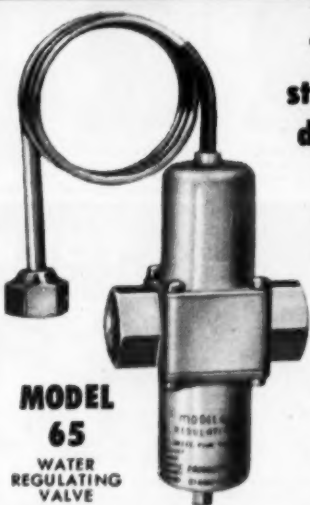
VELOCITY POWER TOOL COMPANY  
201 N. Braddock Ave. • Pittsburgh 8, Pa.

## "Here's why I'm 100% for A-P CONTROLS"

Says Glen Pohle, owner, Refrigeration Service Co., Milwaukee, Wis.



... and these Milwaukee jobbers agree  
**A-P CONTROLS PAY BIG DIVIDENDS**



MODEL 65  
WATER  
REGULATING  
VALVE

This valve stays clean in dirty water!

The exclusive self-cleaning action of the A-P Model 65 Water Regulating Valve provides completely trouble-free operation—even in very dirty water! Available in 1/2", 3/4", 1" sizes. 2.7 to 42 gpm capacities. Write for complete details.



Plastic valve shoe floats on stem. Bevel design assures clean "wipe" of seat.



Valve starting to close. Note how bevel allows shoe to "hug" seat.



Valve fully closed. Shoe wipes seat clean at every cycle.

## They know from experience...A-P Controls are best for guaranteed servicing

"You bet I like A-P valves" says Glen Pohle, "and I'll tell you why. In my business, it's absolutely necessary to have valves I can depend on to operate perfectly—and to keep on functioning perfectly day after day with no further attention."

"That's why I'm sold on A-P valves. They're easy to install... adjustment is quick and easy... and they sure cut down on call backs! When I install an A-P valve on a customer's job, I know that I'm giving him the very best in performance and dependability. And believe me... that's the way to keep customers!"

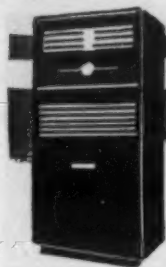
You'll make your customers happy, too, if you concentrate your selling efforts on A-P—the **DEPENDABLE** controls!

## A-P CONTROLS CORPORATION

2460 North 32nd Street, Milwaukee 45, Wisconsin  
In Canada: A-P Controls Corp., Ltd., Cookville, Ont.







## AIR CONDITIONING (Year-Round Residential)

### Existing Higher Priced Houses Seen as Best Prospects for Air Conditioning

DETROIT — The best and most profitable source of residential air conditioning business for dealers will be found in existing higher priced homes, Walter Landmesser, manager of retail sales for York Corp., told Michigan distributors here recently.

Next best source, he said, is in new higher price construction—about \$30,000 and up. Third source is in the speculative market among homes built to sell for less than \$20,000.

The speculative home market is not a good one for the air conditioning dealer, he declared, because the builder is trying to get the "extra" feature of air conditioning in his homes at the lowest possible cost. Sales made in this field will of necessity be low profit sales for the dealer.

Commenting on the rapidly growing interest in residential air conditioning in all parts of the country, he said that three years ago on the Pacific Coast air conditioning was not deemed practical any farther north than Los Angeles. Today, the public is interested in residential air conditioning even in Seattle.

#### SALESMEN RINGING DOORBELLS IN SOME CITIES

"In some cities of the country," Landmesser asserted, "residential air conditioning has come to the stage where salesmen are out pushing doorbells—telling a story not dissimilar to the vacuum cleaner salesmen."

On the same program, Deane Worlein of York-Detroit Corp. outlined to the York dealers the seven steps in the sale of residential air conditioning and John Garceau, manager of advertising and sales promotion for York Corp. told them how to find sources of new home business—among homes that are not yet built.

The seven steps outlined by Worlein were these:

1. Prepare a presentation easel that, in order, builds the prestige of the manufacturer, the background and prestige of the distributor, presents literature and specification sheets on the equipment being sold, gives pictures and names of local users, lists the advantages of residential air conditioning, presents testimonial letters from local users, and concludes with press clippings from local or trade papers.

#### COMMERCIAL AIR CONDITIONING USERS ARE PRESOLD

2. Make a list of commercial air conditioning users and canvass them. They already know the advantages of air conditioning. Offer to survey their homes for air conditioning and prepare a proposal.

3. Develop contacts with leading architects, heating dealers, builders

of quality homes, builders of lower priced homes, bankers, mortgage holders, etc. They are all good sources.

4. Establish a smooth work team with your sub-contractors—those who do your sheet metal and plumbing work, electrical work, and/or hauling and rigging. Fair treatment for them pays off in loyalty to you.

5. Locate a subdivision of a select number of residents in the \$25,000 to \$50,000 class occupied from two to four years and equipped with forced warm air heating. These people are over the shock of the initial purchase of the home and are usually in the mood to consider ways of improving their home. Canvass them with your presentation easel.

6. Cultivate public utility executives, particularly the new business and commercial managers. Sell them on the advantages of your product from the utility's point of view—even year-round load building and no high current inrush where starting up the equipment. Also sell them on your ability to give dependable service and do quality jobs. They often have opportunities to recommend a particular dealer to their customers.

#### DIRECT MAIL IS GOOD BUT MUST BE FOLLOWED UP

7. Send direct mail to and canvass select groups of homes. Occupied residences of good quality offer the best opportunity for quality jobs at a profitable level, Worlein re-emphasized. Direct mail is good, he said, but only if you follow through on it with a personal contact.

Garceau's advice on how to find sources of new home business consisted of three steps.

First, call on architects and builders of quality homes—the ones in your community with good reputations for quality work. Offer your assistance in their air conditioning problems, explain the advantages of your equipment, and offer to supply them with air conditioning literature.

Second, leave with them copies of the literature on the products you have to sell, including room air conditioners. Wrap them up in a file folder with your business card.

Garceau cited the case where a Delaware builder made up his own presentation easel from the literature given him by the dealer and put it in his model home. He also posted a copy of the York five-year warranty on a duct of the air conditioning system built in the model home.

As the dealer's name was on these pieces of literature and warranty, the dealer not only received prospects for other installations in the project, but got calls from persons who were interested in air conditioning but wanted to build elsewhere.

Literature on room coolers should be left, because sometimes builders will construct a house with provisions for later installation of air conditioning, but will only put a room unit in a bedroom, nursery, or living room.

Thirdly, Garceau said, when you get back to your office, make up a manual containing all your literature and your own sales presentation written in the form of a personal letter to the builder or architect. Then take the manual back to him and present him with it. The additional call and the gift will make a further impression upon his mind.

### Rhyming Verse Campaign Is Feature of Airtemp's Expanded Year-Round Air Conditioning Ad Drive

DETROIT — Typical of Chrysler Airtemp's 1953 consumer advertising is this rhyming verse intended to bring residential air conditioning to the attention of the housewife and her family:

"D is for dirt  
That's what housework's about,  
But Chrysler Airtemp . . .  
It filters dirt out!"

Lead copy in the April Airtemp advertisement, the verse is one of a March-through-October advertising series originated by Airtemp and Grant Advertising agency for *American Home*, *Better Homes and Gardens*, *House Beautiful*, *House and Garden*, *Living for Young Homemakers*, and *Small Homes Guide*. *National Geographic* and *Saturday Evening Post* also are carrying the full schedule.

Appropriately illustrated, the alphabet letter ads feature timely topics to call attention to Chrysler Airtemp. (The April ad is illustrated with a mop, broom, and dust pan.) The last line reveals a particular air conditioning benefit which the housewife and her family can enjoy in their home.

The alphabet and rhyme idea was chosen for its flexibility in lending itself to either full-page or single column layout.

Outgrowth of the series was "Alphabet Fun," a 28-page alphabet book written and illustrated to entertain children three to six years. In four-color, alphabet-block cover, the booklet stars "Mr. Comfort Zone," an essential part of the Airtemp logo—romping through 26-pages of alpha-

bet letters and rhymes. Inside pages are illustrated in color on rich yellow stock.

In both "Alphabet Fun" and consumer ads, copy theme stresses better health and less housework with more year-round comfort for the entire family.

"Alphabet Fun" is offered through couponed consumer advertising with a combined monthly circulation of 14,800,000. Chrysler Airtemp dealers are distributing the booklets to parents upon request, and to children in nursery schools and kindergartens.

"The 1953 Chrysler Airtemp consumer advertising campaign is our most concentrated effort to date to bring the subject of air conditioning into an intimate discussion within the family circle," stated J. F. Knoff, vice president and general sales manager of Airtemp.

"The housewife is the key to the residential air conditioning market. By showing her that air conditioning will lessen her housework and keep her family healthier and more comfortable, we will have opened up a 20-million home market, now less than 1% saturated," declared the Airtemp spokesman.

Consumer advertising and promotion is the principal member of a six-phase advertising program. Wide-spread TV, radio, billboard, and newspaper campaigns supplement consumer advertising on both the national and local dealer level.

Builders and architects who influence brands of air conditioning are urged to include Chrysler Airtemp equipment in basic modern home and

building design through a separate campaign.

Through vertical publications, businessmen are shown "reasons why" Chrysler Airtemp "packaged" air conditioners help build business profits.

National newspaper advertising tells the air conditioning efficiency story to business men—and the year-round heating and air conditioning health, cleanliness, and comfort story to consumers.

Demonstration devices, displays, and direct-mail ad reprints—all available on a cooperative advertising basis—help knit the dealer-manufacturer campaign.

Knoff also revealed that Airtemp experienced a 21% increase in 1952 business. He estimates that Airtemp's 1953 sales will increase by 32%. Greatest gains will probably be made in sales of room coolers and central-type residential air conditioners, the Airtemp spokesman predicted.

### Norton Heads Williams Dealer-Sales Relations

BLOOMINGTON, Ill.—Max Norton has been named manager of dealer-sales relations for Williams Div., Eureka Williams Corp., it was announced by A. F. Ward, general sales manager.

Norton will coordinate dealer relations and home office sales departments. He was previously assistant to the general sales manager of Williams Div.

The Bloomington firm is the manufacturer of the Williams "Oil-O-Matic," "Gas-O-Matic," and "Air-O-Matic" residential heating and air conditioning units.

## McQuay FACTORY REPRESENTATIVES



E. FEINBERG  
Michigan Territory



W. H. McCULLOUGH  
Illinois-Wisconsin Territory



TED STIKELEATHER  
East-Central Territory

## Good Men and



W. J. CULVER  
J. G. FISCHER & SONS  
Saginaw, Michigan



JACK M. BARAGAR  
HUNTER REFRIGERATION  
SALES CO.  
DETROIT, MICHIGAN



KEN STEWART  
J & W COMPANY  
PORT HURON, MICHIGAN



CHAS. F. PORTER  
CLIMAX ELECTRIC  
DISTRIBUTING COMPANY  
GRAND RAPIDS, MICHIGAN



BOB CRAWFORD  
JOHNSTON REFRIGERATION  
SALES CO.  
DETROIT, MICHIGAN



V. J. SWEENEY  
AUTOMATIC TEMPERATURE  
SUPPLIES INC.  
MADISON, WISCONSIN



TOM CLARK  
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MILWAUKEE, WISCONSIN



FRANK RITTLE  
TEMPCO SUPPLY CO.  
CHICAGO, ILLINOIS



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NATIONAL REFRIGERATION  
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### NEW REFRIGERATION PRODUCTS

Reliable manufacturer with both chemical and mechanical production facilities wants new products to manufacture and sell through Refrigeration Wholesalers.

Send full information to Box 4167, Air Conditioning & Refrigeration News.

## Special Notice!

AIR CONDITIONING SALES this year are expected to be greater than ever before. You will get a bigger share of this business by offering *air-borne bacteria control* through the nationally accepted *Glycolator* method.

Get an early lead by adding this low cost, profit-producing appliance to your line NOW! Write for complete information:

*Glycolator*, Dept. A-5, Valencia, Pa.



## 8-Story Bldg. Installs Electric Air Conditioning, Heating System on Basis of Maintenance Costs

CHATTANOOGA, Tenn.—All-electric heating and air conditioning are major features of the new eight-story Edney Bldg. in the downtown area here.

The first seven floors are leased to the Tennessee Valley Authority for office space.

Decision in favor of electric rather than gas heating was made chiefly on the basis of lower maintenance costs, although gas consumption for the building would have been \$200 a year less, it was explained.

Cost of material and equipment would have been about the same, but it was felt that the cleaning of burners and adjusting for proper burning efficiency plus the cost of including a stack or flue for gas in the building favored an all-electric system.

The electric strip heaters are included in the air conditioning systems, a separate two-zone system being provided for each of the eight floors. On each of the first six floors cooling is provided by a bank of four 6-ton York units. The seventh and eighth floors each have five 6-ton units. There 204 tons of cooling capacity in all.

Total area of the building is 71,856 sq. ft.; total volume, 673,526 cu. ft. The first floor, with a higher ceiling, has a volume of 107,660 cu. ft. while each of the other seven floors has a given volume of 80,838 cu. ft.

The York cooling units on each floor are controlled in steps by a Minneapolis-Honeywell "Modutrol" system so that no more units than

required are operated. Each of the York units is independent of the others in each bank so one can be removed in the event of a breakdown while the others in that bank will operate to maintain comfort.

Total heating load for the building amounts to 510 kw. or 76 watts per cu. ft. of the building's volume. The first six floors of 40 kw. each of General Electric fin strip heaters; the seventh floor, 65 kw. and the eighth floor, 70 kw.

Extra heating and cooling capacity on the seventh and top floors are required because of additional exposure on the south side and roof. The first six floors adjoin a heated building on the south side.

Air circulation is provided by a 10-hp. blower on each floor. Volume of 10% makeup air is provided for air conditioning with 135 kw. bank of strip heaters to preheat makeup air.

"Since each floor is separately operated and maintained, it is readily seen that such an operation is flexible to a very high degree," points out R. E. Reeves, heating engineer with the Electric Power Board of Chattanooga.

"For example; a seventh floor department has special work to be done over the weekend. Only that section, of that floor, needs to be heated or air conditioned, not the entire building—nor, even if zoned, does it require the services of a maintenance man or operator to see after heavy-duty equipment that a building this size would require if centrally heated or air conditioned."

## H.A. Pietsch, Formerly with Dravo, Forms Own Co.

PITTSBURGH—Formation of the H. A. Pietsch Co. here to represent manufacturers of commercial and industrial air conditioning, heating, and combustion equipment in western Pennsylvania, eastern Ohio, and West Virginia was announced recently by H. A. Pietsch.



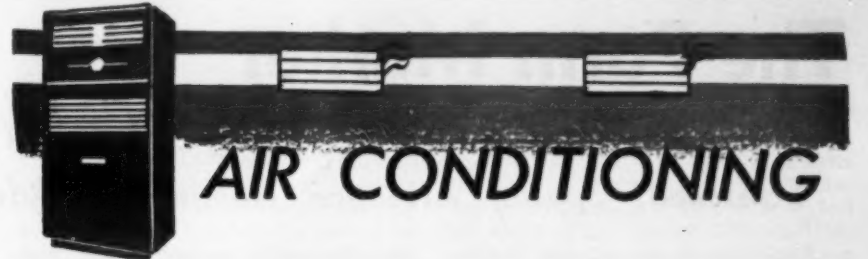
H. A. Pietsch

Pietsch has been chief engineer of the heating department of Dravo Corp. for more than 18 years. During that time he was instrumental in the design and development of one type of industrial warm air space heater and pioneered in the application of warm air heating with gas and oil fired space heaters for large open area structures, according to the announcement.

A graduate of Geneva college, Pietsch later specialized at Carnegie Tech and the University of Pittsburgh in heat transfer, power engineering, thermodynamics, heating, and air conditioning.

He is the author of several articles for technical publications and is a member of the American Society of Heating and Ventilating Engineers and the American Society of Mechanical Engineers.

Pietsch, whose office is at 894 Heckler Dr., now handles the United States Air Conditioning Corp. and National Heater Co. commercial and industrial lines.



## Carrier Provides Cooling For Mennan Co. Plant

MORRISTOWN, N. J. — Carrier steam absorption machines have been installed to provide cooled water for air conditioning for the new plant of the Mennan Co. here including the laboratory, office space, cafeteria, and portions of the factory of the two-story building.

The office spaced, situated on the perimeter of the building, as well as the laboratory on the second floor, will be air conditioned by the Carrier conduit Weathermaster system. More than 130 Weathermaster units will provide individual room control.

Seven Carrier central system air conditioning units will be employed for the factory area. One will be used in the cafeteria and two for the interior areas of the office space.

High velocity ducts, about one-eighth the size of the conventional heating ducts, are used to carry the cooled or heated air.

Engineers and architects for the building are A. M. Kinney Associates of Cincinnati, Ohio. The George A. Fuller Co. is general contractor and Richardson Engineering is the mechanical contractor.

EVANSVILLE, Ind. — H. Richard Nielsen has been appointed sales manager of the air conditioning division of Servel, Inc., it was announced recently by John A. Gilbreath, assistant vice president in charge of air conditioning. He will be succeeded as southern regional sales manager by Nils D. Sellman.



H. R. Nielsen

Nielsen has been with Servel for six years. He was air conditioning zone supervisor in Washington D. C., and for the past two years regional air conditioning manager for the southern region with headquarters in Atlanta.

Before joining Servel, he was associated with the Milwaukee Gas Light Co. as a salesman, sales supervisor, and later manager of the new construction division.

Nielsen was born in Copenhagen, Denmark, and attended Northwestern university.

Sellman, a resident of Tuckahoe, N. Y., has been Servel's air conditioning sales representative in New England for five years. He was born in New York, and was graduated from the Stevens Institute of Technology, Hoboken, N. J. He served in the U. S. Navy during World War II.

## Dahl New Haldeman V. P.

LOS ANGELES — Election of its chief engineer, Niel N. Dahl, to a vice presidency was announced recently by Harry F. Haldeman, Inc., distributor and wholesaler of air conditioning, heating, and ventilating equipment.

## Filter Service Offered In New Orleans by New Firm

NEW ORLEANS—Opening of Air Filter Co., a division of Marshall, Neil & Pauley, Inc., which will offer specialized service for permanent-type filters used in ventilating, heating, and air conditioning systems, is announced by C. B. Castiglione, New Orleans district manager.

According to L. Charles Cressy, who has been named manager of the new company, the service offered will reduce maintenance man hours for filter users and at the same time increase the efficiency of the equipment.



JIM HAILEY  
Tennessee-Arkansas Territory



GEORGE R. KLAHN  
Northwest Territory

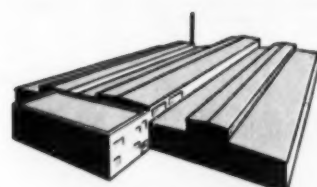


BERNARD M. PACKTOR  
New England Territory

# Good Products to know!

**McQuay... A great name**  
**Coast to Coast in refrigeration, heating and air conditioning!**

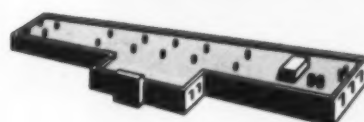
You are in good company when you specify McQuay's *proved and preferred* refrigeration equipment. McQuay is proud of its good name in the industry—and fully prepared to back up its claim that the exclusive Ripple-Fin Coil construction of its products is positive assurance of high heat transfer efficiency... dependable performance... *customer satisfaction*. Link your good name with McQuay's through the McQuay wholesaler in your territory... a good man to know for selling help, technical advice, quick action.



PLANT 1—1600 Broadway N. E.  
MINNEAPOLIS 13, MINN.



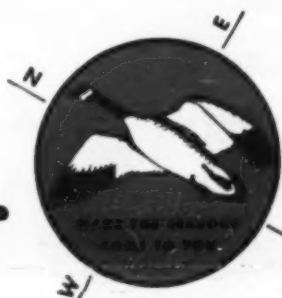
PLANT 2—1729 Broadway N. E.  
MINNEAPOLIS 13, MINN.



PLANT 3—4th and Park Ave.  
FARIBAULT, MINN.

**McQuay INC.**

1607 Broadway N.E., Minneapolis-16, Minnesota



REFRIGERATION  
AIR CONDITIONING  
HEATING



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Distributor of "Kinetic" Chemicals "Freon" refrigerants  
"FREON 11"—"FREON 12"—"FREON 21"  
"FREON 22"—"FREON 113"—"FREON 114"  
In Standard Containers

Eston Refrigerants Are Sold by Leading Refrigeration Wholesalers Everywhere

CHARG-A-CAN Disposable Container with "Freon 12"—"Freon 114" Sulfur Dioxide

**ESTON CHEMICALS DIVISION**  
American Potash & Chemical Corporation  
3100 East 26th Street, Los Angeles 23 • 60 East 42nd Street, New York 17  
SALES OFFICES IN ALL PRINCIPAL TRADING AREAS



# The Farm Market

**Widespread Use of Electricity Creates Potential Market That Hasn't Been Scratched; Special Attention Needed In Advertising, Dealer Training**

CHICAGO—Some of the "unlimited" opportunities the "vast" farm market offers for the sale of electrical power and equipment and some of the things that should be done to take advantage of those opportunities were outlined at a meeting of the Farm Section of Edison Electric Institute during EEI's recent sales conference here.

One of the speakers was J. Rushton of Frigidaire who spoke as chairman of the Farm and Rural Market Development Committee of the National Electrical Manufacturers Association.

After making a "frank appraisal" to determine what the appliance industry has accomplished in the farm market, Rushton concluded that the industry needs better dealer coverage, more effective dealer training, better organized promotional activities, more advertising directed to the farm home, and better dealer service to the farmer.

"Today, approximately 80% of the electricity used on the average farm is used in the house," Rushton said. "This carries the implication that we in the appliance industry have done an outstanding job. But what are the facts?"

"The best available data indicates that less than 50% of the farm homes are equipped with a pressure water system . . . The farm homes that don't have one are denied the use of a fully automatic washer, plus

the automatic water heater, dishwasher, waste disposer, and all other appliances requiring a flow of water.

"The saturation of electric refrigerators is fairly high but this is a device that's frequently bought rather than sold. The Country Gentleman survey made in May, 1951, showed that only one family out of ten was solicited by a dealer or his salesman. The other nine made the initial overture to the dealer.

## LP Gas Makes Inroads

"The progress that has been made in selling electric ranges to farm families leaves much to be desired. LP-Gas has made a big inroad into the potential of this market.

"When the 1940 census was taken there weren't enough LP-Gas ranges in use in farm homes to give the appliance a separate classification. The LP-Gas ranges were grouped with ranges using kerosene and other liquid fuels."

"After the 1950 census we learned that 16.1% of the farm families were cooking with LP-Gas as compared to 16.3% cooking with electricity. So for all practical purposes the LP-Gas industry, because of improved economic conditions on the farm, lack of availability of electric ranges in the rural markets, and more aggressive selling methods, has accomplished as much in less than ten years than we in the

electric range industry did in 25 years.

"Farm food freezers present an equally challenging situation. As near as we can determine over and above those farm families using a food freezer, nearly 35% of the farm families have a food locker but not a freezer and so must make a trip to town every time they want something out of the locker.

"Over half the families who have a pressure water system, lack a water heater of any kind.

"We could go on through each category of appliance and the picture would be much the same. Actually we think you will agree that we have a vast untapped market that must be sold if the standard of living on the farmstead is going to be raised to anywhere near the level of the average city home.

"The situation existing today seems to point up certain definite needs in the appliance industry if the farm market is going to be served in the way it should.

## Right Dealer In Wrong Place

"1. Dealer coverage: While the appliance industry may have more dealers than the current volume of business will support, we feel that's because there are too many in the wrong places.

"The Country Gentlemen survey

shows that the average farm family likes to buy their appliances in small towns located near their farms. Actually, according to the survey, 70% of their purchases were from dealers located in towns of 10,000 or less and in 75% of the cases the town was within 15 miles or less of their farms.

"So it would seem that we as an industry, need a better grass roots coverage of the farm market with dealers of a type who are aware of and who will cater to farm families' needs.

## Cooperate In Fairs, Granges

2. Dealer training: Dealers need to be trained in methods of covering the farm families in the area in which they are located. Farm families, as in the past, can't be expected to continue to go to the dealer. He will have to go to them. He will have to learn and use inexpensive but effective ways in which to reach his prospects.

"We, as manufacturers, with your help, must develop cooperative sales programs for use with farm family groups at fairs, grange meetings, church activities, youth clubs, and all those places and occasions where farm families gather.

3. Dealer service: In the past the dealer's service of appliances used by the farm families has in many cases left much to be desired. I scarcely ever attend a farm meeting at which the subject of dealer service to the farmer or the lack of it, doesn't come up for discussion.

"We, as manufacturers, have always recognized the need for good service. We believe sales and service go hand in hand and that a dealer can't build a profitable, enduring appliance operation in a community unless he recognizes and discharges, in a high grade way, his service responsibility . . .

4. Advertising: The urban and rural families have much in common so far as many fundamental desires are concerned. They frequently read the same magazines and other publications. Therefore, much of the advertising on some of our products doesn't need to be 'slanted' to any particular type customer.

## Advertise In Farm Periodicals

"However, in those magazines and periodicals that have a circulation that is largely limited to the farm homes, we see a real need to have the advertisements directed to the specific wants and needs of the farm home."

E. O. George, manager of sales for

The Detroit Edison Co., told the section that there are "three great challenges which face us now." He listed these as declining farm prices, the rising cost of farm equipment and labor, and the increasing pressure of competition, particularly from the petroleum industry.

George said these challenges can be converted into opportunities by helping the farmer save more of what he produces, helping him dodge the low spots in the market, and helping him save labor.

"All are opportunities to help the farmer make more money by producing more," he pointed out.

To illustrate how to help the farmer hit the high spots in the markets, George cited this example:

"One farmer in our area who raises green onions was always plagued by the fact that on certain days—the days he had onions ready for market—the demand for onions was off and the market was always low. And the green onions could be kept in good condition only about 24 hours after they were harvested.

"Now this same farmer has installed electric refrigeration for storage and can sell week-old onions that are just as fresh as the moment they were harvested. This farmer is a good customer of ours because we have helped him to hit the top of the market instead of the bottom, and he is using electricity to make money."

George added that the problems of the farmer who produces and markets perishable foods offer a special opportunity.

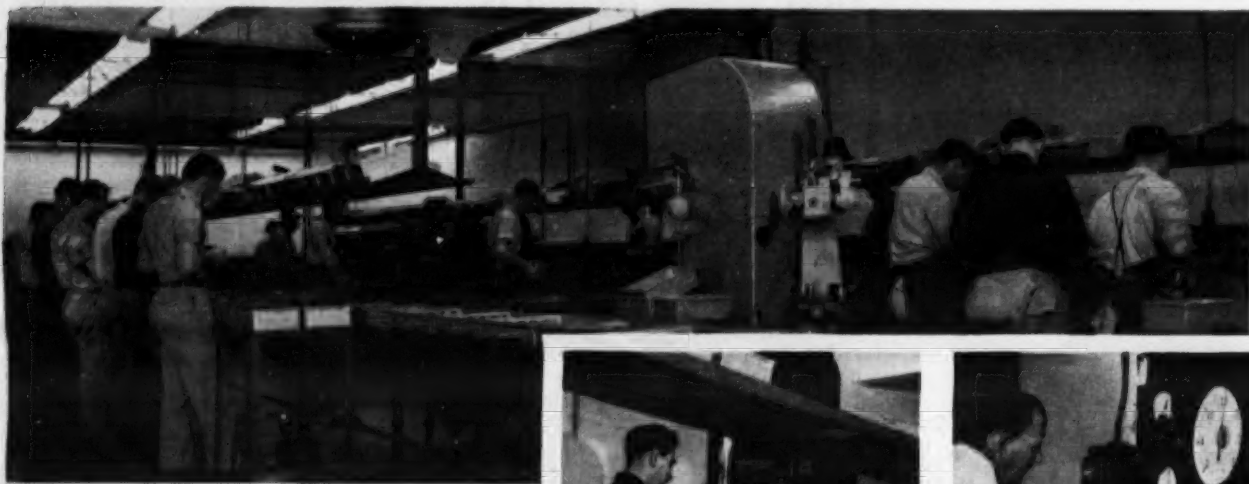
## Sell 'Perishable Produce' Angle

"Often a few days' delay makes the difference between a profit and loss for him," he said. "We can help this farmer sell at a more favorable price if we help him use electricity to control temperature and moisture conditions for storing his perishable products."

George also mentioned several examples of how to help the farmer save more of what he produces and save labor. Regarding the latter, he pointed out that modern dairy farms are using electricity to milk the cows and immediately pump the milk from the milker to the cooler.

"Probably the rising cost and the descending supply of labor has squeezed the poultry farmer a little harder than other farmers," he continued. "Nevertheless, some poultry producers have almost completely

(Concluded on next page)



Clean as a kitchen is the spacious, white-walled, brightly lighted, temperature-controlled room in which Supermet power units are assembled. Every part of the compressor is washed before entering the room. No place here for dirt or foreign particles that might cause trouble or wear.



After permanent connections from motor to power unit terminals are made, the motor-compressor is accurately fitted into its steel case and hydraulically pressed into place.



Every Servel Supermet power unit is given a final Volumetric inspection test in an air-conditioned room to make sure it delivers its full rated capacity.

**BUILT-IN** *Quality*

**makes SERVEL SUPERMETICS**

**perform better . . . longer!**

The years and years of economical, trouble-free performance that tens of thousands of satisfied users are experiencing with Servel Supermet Condensing Units are the result of the super quality which is built into them.

Advanced engineering, careful selection of materials, skill of workers, precision manufacturing methods, rigid inspection of every unit produced . . . all add up to a finished product that has proved that it performs better and longer.



● To learn more about the outstanding buy in Hermetic Condensing Units for every commercial refrigeration need—from 1/4 to 3 HP—see your nearby Servel Wholesaler or write to Servel, Inc., Electric Refrigeration Division, Evansville 20, Indiana.

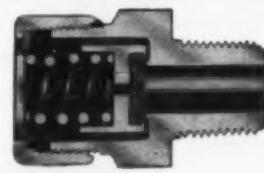
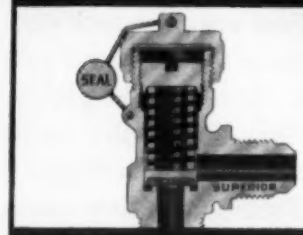
**Let a Superior relief valve do your worrying!**

Relief Valves are fast becoming an integral part of all refrigeration systems because of their fool-proof safety feature. No matter what the cause of a pressure overload, a Superior Relief Valve safely discharges the excess build-up and promptly reseals the system for continued efficient operation.

All Superior Relief Valves comply with the ASA-B9.1-1950 Code, assuring you of the proper discharge capacity for the size of the vessel. Pressure setting and capacity are stamped on the exterior of each Superior valve . . . and they are properly set and sealed at the factory.

For your next installation—whether it is built from blueprints or is an overhaul—ask your wholesaler to select the correct Superior Relief Valve for your purpose. It will pay off in added safety!

**Ask your wholesaler for Superior Relief Valves!**



**Superior valve and fittings co.**

Pittsburgh 26, Pa.



**Servel**

THE NAME TO WATCH FOR GREAT ADVANCES  
IN REFRIGERATION AND AIR CONDITIONING



## Farm Market Potential--

(Concluded from preceding page) eliminated manual labor by using electricity.

"Electricity hatches the chicks, then it broods them by keeping their feet warm and their backs warm with automatically controlled radiant heat. After the chicks have grown into laying hens, electricity supplies plenty of fresh water and automatically mixes their feed in just the right proportion, then delivers it to them.

"Electricity automatically ventilates the building, gathers the eggs, and carries them to the refrigerated storage rooms. Similarly, electricity on some broiler farms has taken over an amazing share of the labor."

George told the rural service managers that to make the most of opportunities, "we should do some dreaming." He listed "a few dreams that can be realities right now if we are awake," one being expanded use of the refrigeration principle for air conditioning and heating.

### Heat Pump Application

"Incidentally," he said, "Sweden and some other countries are ahead of us in applying the heat pump principle to farm problems."

"If we act with determined purpose," he stressed, "there is no limit to the amount of help we can give the farmer or to the extent of the rural market. By 1970 we should be selling American farmers 70 billion kilowatt-hours."

The Farm Section also heard a report by B. G. Sanderson, general sales manager of Deepfreeze, on the farm market for electrical appliances. He said electricity "is well recognized as the 'life-blood' of farm production. Now we must show how electricity is also the life-blood of the farm home."

Farm income will dip slightly this year, Sanderson said, so farmers are more conscious than ever of the need for reducing operating costs. He pointed out that electrical appliances play a vital role in keeping farm costs down by relieving farm families of routine household chores and giving them more time for actual farm production work.

Suggesting the utility companies take full advantage of electrical appliances as load builders, Sanderson urged the rural service managers to contact farm customers personally to sell the safety, convenience, and economy of the electric range, refrigerator, laundry equipment, home freezer, television, automatic heating, etc.

### 95% Have Electricity Available

The farmer is also a good prospect for air conditioning, Sanderson said, since he would enjoy being comfortable at the end of a hard day's work in summer heat. And, the Deepfreeze executive added, "farmers have got the money to pay for it."

The farm market, Sanderson concluded, offers a "grand opportunity" for sales but the salesman must know what the farmer's problems are, find an honest solution to them,

and then "let them know you have the solution. Planned action at the point of sale is the answer."

The Farm Section luncheon speaker, Merritt D. Hill, vice president of Dearborn Motors Corp., said there is no doubt that a tremendous job has been done in the past 25 years in electrifying farms and in selling farmers on electricity.

"This is especially true," he declared, "when you consider that the average usage of electricity on the farm has multiplied more than three times in the short space of 10 years."

"It appears that most farmers are sold on your basic product, but are they using as much as they should or could? Ninety-five per cent of farmers now have either electrical service, or have it readily available, yet the last U. S. Census of Agriculture taken in 1950 shows that only 37.4% had water systems, 17.4% had electric hot water heaters, 12.1% had home freezers, and only 17.4% of the farms with milk cows had milking machines."

Hill then outlined some of the ways in which the tractor and farm equipment industry has steadily increased sales to the farm market, to indicate how more electrical power might be sold to the farmer. He made these points, among others:

"The successful farm equipment dealer must understand the problems of his farmer customers as intimately as he knows his own business. . . .

"A sincere interest in (the farmer's) welfare plays an important part in every sale. . . .

"By nature farmers are, as a class, rather skeptical—they want proof as a rule, and in our business that means demonstrations on the prospect's farm. . . .

"Any farm equipment dealer who is not interested in giving prompt, courteous, and low-cost service to the farmers of his community has small chance for long-term success. . . .

"A common technique used in our business to find new and additional business is a tractor and machinery survey. . . . I can't see why an electrical survey of farms could not be equally as potent a sales tool for the sale of additional electrical power, electrical appliances, electric motors, more adequate wiring, etc. . . .

"We never overlook the fact that young farmers, especially 4-H and F. F. A., are influential in what their parents and farmer friends buy and do. Also, we can't overlook the fact that they will be doing a lot of the actual buying in the years just ahead."

"We have determined that our dealers can well afford to spend some time in teaching and training several outstanding F. F. A. or 4-H boys in their communities to become professional demonstrators . . . and pay them a nominal sum for putting on demonstrations. . . .

"Good customer research can uncover many new product and service opportunities in the rural market and well help you avoid making costly mistakes."

Hill concluded: "Third dimension

selling is what is needed today to do a real job in the highly competitive farm market. . . . The way you project your product to the customer makes the difference. . . . Project it in a new and more interesting fashion."

In discussing "Electric Farm Equipment Potentials," Paul W. Chapman, associate dean, College of Agriculture, University of Georgia, presented a list of electrical household equipment owned by farmers of the south. The list was divided into two parts: the items in which ownership is greater than 50% of the potential, and the items in which ownership is less than 50% of the total number of electrified homes.

### Less Than 50% Saturation On Most Products

"This list of home equipment includes 15 items; all are desirable in the farm home," he said. "Yet, in only three items (refrigerator, conventional washer, and iron) has ownership attained as much as 50%."

"For all others, the average percentage of ownership is less than one-fourth the homes wired for service. This means that in the south, which has about one-half the nation's farms, that three out of four home equipment items that represent the potential have yet to be sold."

"Of the 12 items listed in which there is less than 50% ownership, the additional sales potential—not considering replacements—amounts to approximately 20,000,000 units."

Chapman cited other figures to show that "for farm equipment, as with farm home appliances, potential sales are far greater than those previously made."

## Farmers Near Omaha Buy More Dryers Than Washers New Film Tells Story of G-E Laundry Appliances

OMAHA, Neb.—Though rural folks are usually considered to be more conservative in their tastes than city dwellers, statistics recently issued by the Omaha Public Power District seem to indicate that they are more appreciative of some of the newer appliances than their city cousins.

The statistics covered February appliance sales by 91 dealers in Omaha and the rural territory served by the utility.

They showed that where Omaha residents bought 350 refrigerators as compared with 117 freezers, the country people purchased 41 freezers and only 12 refrigerators. Where 334 conventional washers, 276 automatic washers, and 106 dryers were sold in the city, 25 dryers, 19 automatic washers, and only three conventional washers were sold in rural areas.

The breakdown on February sales between Omaha and the rural areas for the various appliances was as follows:

Appliance	Omaha	Rural	Total
Refrigerators	350	12	362
Home Freezers	117	41	158
Ranges	219	68	287
Water Heaters	102	39	141
Conventional Washers	334	3	337
Automatic Washers	275	19	295
Dryers	106	26	132
Dishwashers	10	10	20
Disposal Units	22	22	44
Room Air Conditioners	6	6	12

LOUISVILLE, Ky. — A 26-minute black-and-white motion picture utilizing a situation-comedy theme to tell the story of the newest General Electric home laundry appliances has been made available for showings to educational, social, business, church, and civic groups.

Titled "Rain or Shine," the 16-mm. sound-film is being distributed through 27 film exchanges of Modern Talking Picture Service, Inc., Rockefeller Plaza, New York City. Showings also will be arranged by G-E major appliance distributors and dealers.

James H. Goss, general manager of the home laundry equipment department, said that more than one million persons are expected to see the picture at about 9,000 showings during the coming year.

The plot centers on the predicament of a young husband called upon to do the family wash without the aid of automatic home laundry appliances.

A helpful neighbor comes to his aid and demonstrates the work-saving, time-conserving advantages of G-E home laundry appliances; and shortly thereafter a complete G-E home laundry is installed in the young couple's home.

### Schultz Opens Branch Store

ERIE, Pa.—The Arthur F. Schultz Co., appliance firm, has opened a branch store at 12th St. and Powell Ave. Lawrence Scully is manager of the new store.

### THE GREAT NEW

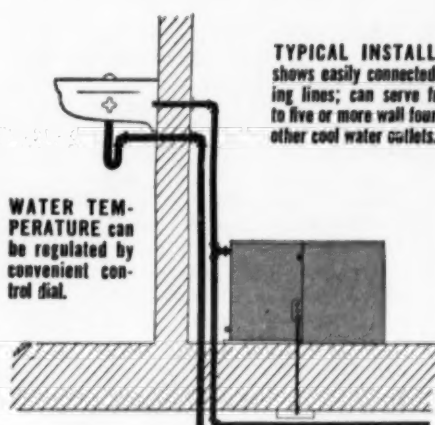
## Temprite

### REMOTE PACKAGED

### TYPE WATER COOLERS

offer you . . .

# SALES POTENTIALS!



WATER TEMPERATURE can be regulated by convenient control dial.

TYPICAL INSTALLATION shows easily connected plumbing lines; can serve from one to five or more wall fountains or other cool water outlets.



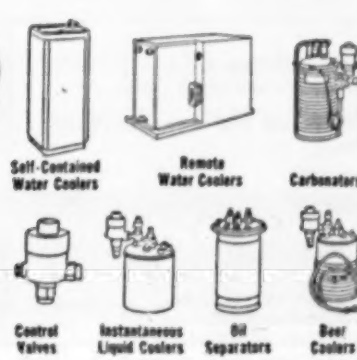
AVAILABLE IN 3, 5 or 10 gallon capacities. All models approved by Underwriters'.

INSTALL THE GREAT new Temprite, remote packaged type water cooler in practically any and every location . . . wherever cool water is needed! Mount from wall brackets in factory locations and save valuable floor space! Use to replace old deteriorated central systems and save costly major plumbing alterations! Designed for economical installation in offices, schools, motels, gasoline stations, institutions, roadside drive-ins; for

glass filling stations in restaurants, bars, cafeterias, for home use in recreation rooms, etc.

Install the Temprite in many liquid cooling applications, such as light duty commercial or industrial work . . . photographic and X-ray development . . . for lab experiments . . . for roll or jacket cooling . . . for cooling light oils, some chemicals, etc.

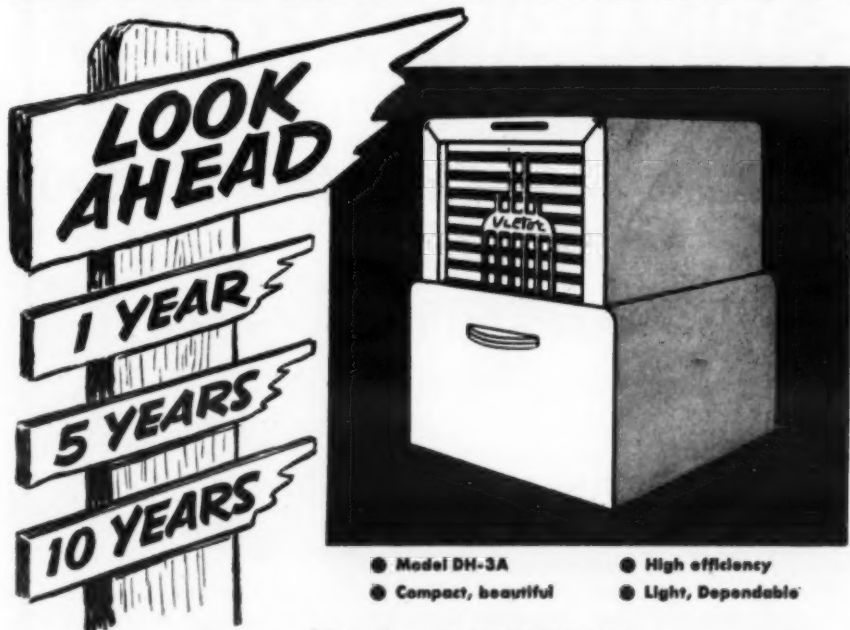
The Temprite cooler offers you gigantic sales potentials!



TEMPRITE PRODUCTS CORP.  
P.O. Box 72-A, East Maple Rd.  
Birmingham, Michigan

☐ Send me data on remote type coolers.  
☐ I am interested in a franchise to distribute Temprite water coolers.

Name \_\_\_\_\_  
Address \_\_\_\_\_ Zone \_\_\_\_\_  
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— and you'll buy VICTOR today!

... Send for details of this Victor Dehumidifier

and other items in the Victor line that mean

More Sales... More Profitable Sales for You





## Temperature Control Acts on Differential Expansion

—KEY NO. C-510—

SOUTH ORANGE, N. J.—A new small size temperature control suitable for laboratories, low temperature ovens, heating and air conditioning, and other controlling between the limits of -300° F. and plus 300° F. is now being produced by the Burling Instrument Co. here.

It operates on the principle of differential expansion of solids and includes such features as snap-action electrical contacts, cast aluminum waterproof housing, easy temperature adjustability, and close operating differentials.

As in all other Burling controls, the temperature sensing element consists of a high expanding outer tube and a low expanding inner member. The relative motions of these, caused by temperature changes, is multiplied by a level which actuates a Micro Switch. A dial graduated 1 to 10, together with an adjusting screw with a pointer and a locking set screw, are provided for changing settings. A waterproof housing of cast

aluminum with gasketed joints gives full protection to the instrument. For wiring there is a 1/2-in. I. P. S. hole in the side of the housing.

As long a tube as is practicable is used in the heated or cooled space, because this control operates by differential expansion of solids. Standard tube lengths are 5 in., 10 in., and 15 in. with the 10-in. length recommended for most applications.

With the tube of brass and of this length, an operating differential of plus or minus 1/2° F. can be obtained in most installations. The longer and shorter tubes will decrease or increase this proportionally. Standard tube diameters are 3/8 in. and 1/2-in. o.d. Fittings for mounting the instruments have 3/8-in. o.d. tubes.

The Micro Switch has snap-acting contacts rated by Underwriters Laboratories for 15 amperes, 125-250-460 volts, 60 cycles, a.c. Any one of three switch actions may be specified: normally closed (opens on temperature rise); normally open (closes on temperature rise); or single pole double throw.

## What's New

When requesting further information on new products, please use "Information Center" form.



### Frozen Food Display Case Features Two-Tone Color

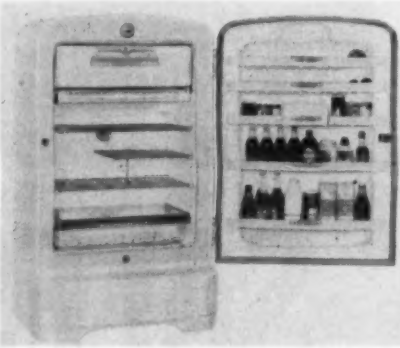
—KEY NO. C-511—

MOUNT VERNON, N. Y.—A glass front frozen food display case of 16 cu. ft. capacity was introduced recently by the Brewer-Titchener Corp. here.

Called the model SS275-S, it features a two-tone color combination of baked white enamel with gold hammer-tone trim. A metallized envelope plate liner with five lateral freezing plates hold uniform temperatures, the company says.

Other features are a quadruple fog and frost free Thermopane glass front plus an extra baffle glass and a "hide-a-way" lid which slides out from the top deck for a night cover. A 3/4-hp. Kelvinator hermetic compressor using "Freon-22" refrigerant supplies the refrigeration.

Measuring 75 1/2 in. long and 35 in. wide, the case stands 54 in. tall when including the five-picture illuminated superstructure.



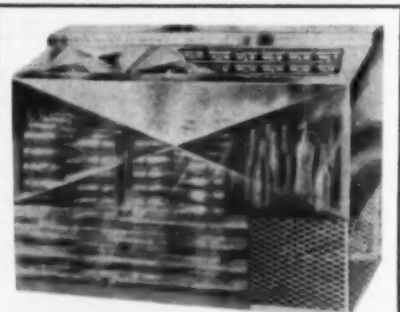
### Pushbutton Defrost In 9.5-Cu. Ft. 'Shelvador'

—KEY NO. C-512—

CINCINNATI—Crosley Div., Avco Mfg. Corp., has added to its 1953 refrigerator line a 9.5-cu. ft. push-button automatic defrosting model bearing a suggested list price of \$339.95.

Designated model DAE-95, the newest "Shelvador" refrigerator has a horizontal freezer with a 42-lb. capacity. Shelf area totals 20.4 sq. ft. Recessed door shelves hold enough food to fill three 20-lb. grocery bags, according to Crosley. The model also features the "Buttersafe," full-width sealed crisper, air flow control, two "pop out" ice trays, and "Sea-Mist" styling.

Model DA9-95 is now being shipped to Crosley distributors and dealers.



### FLO-COLD Stainless Steel DRINKMASTER ICE CUBER-COOLER

"A CASE OF COOL JUDGMENT."

Mfg. by  
United Frigorator Engrs.  
Menominee, Mich.

Write for free 8" x 10" photos

### Fan Serves as Circulator, Blower, Window Unit



—KEY NO. C-513—

ST. LOUIS—An all-purpose fan that can serve as a blower fan, hassock air circulator, and window fan without any attachments or adjustments necessary to change from one to the other has been announced by Knapp-Monarch Co. here.

Called the "Duo-Aire" fan, it features an exclusive reversing gear that revolves the motor and blade unit within the housing as the housing is turned on the base. Thus, when the fan is used as a blower or window fan, the air movement is directed through the directional outlet. When the fan is used as a circulator, air is directing through the circulator outlet.

Measuring 18 in. high by 16 in. in diameter, the fan can operate at high and medium speeds. As a hassock fan it circulates 3,000 c.f.m. at high speed and 1,800 c.f.m. at medium speed.

As a blower it delivers air at 1,500 c.f.m. at high speed and 900 c.f.m. at medium speed.

Four large blades are riveted to a steel hub, designed for maximum air flow and dynamically balanced for

noiseless operation, the company said. They are completely enclosed in a plated grille.

The fan is instantly adjustable by revolving on its base and is held securely by a friction lock. Finish is rose amber enamel.



### La Crosse Adds Automatic Ice Cuber to Line

—KEY NO. C-514—

LA CROSSE, Wis.—La Crosse Cooler Co. here has announced the addition of an automatic ice cube maker to its line.

Company officials said this will be "a very compact unit measuring only 24 in. long by 30 in. deep by 40 1/4 in. high, and that in its design the servicing problem has been given every consideration."

The 1/2-hp. compressor, which is available with a five-year warranty, as well as all other controls will be installed on a panel arrangement "that can be easily pulled out from the front, avoiding the necessity of disconnecting the plumbing in case of service."

According to the company a "well insulated and good size" storage compartment will be an integral part of the machine. The unit will be primarily of polished stainless steel construction.

"There will be a minimum of gadgets and no pumps," the company said. "Only 5 qts. of water are consumed each 30-minute freezing and harvesting cycle."

It was further stated the "cuber" will produce a round, clear cube measuring approximately 1 1/2 in. by 1 1/2 in. high and will have a capacity of about 2,000 cubes in a 24-hour period.

## Information Center

For more information on What's New products, current literature and catalogs available, equipment advertised in AIR CONDITIONING & REFRIGERATION NEWS use Key Numbers where designated or specify products advertised and we'll see that you receive this information promptly.

### What's New or Current Literature Available

Key No. ....	Key No. ....
Key No. ....	Key No. ....
Key No. ....	Key No. ....
Key No. ....	Key No. ....

Products Advertised  
(list name, page, and issue date)

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Company .....  
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City ..... Zone ..... State .....  
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Reader Service Dept.  
450 W. FORT ST. DETROIT 26, MICHIGAN



"Wasn't J. B. here a moment ago?"

## Oasis Is the Water Cooler with 3 Big Selling Features!

Advantages customers can see! And advantages dealers can see, too! Just take a look at this list of Oasis sales advantages, and you'll agree that Oasis is the water cooler to sell:

- Nationally recognized name—advertised in Time and Newsweek.
- A cooler with 3 big selling points—No squirt . . . double capacity . . . quiet operation!
- Warranty—the most liberal and practical Protection Plan in the industry.
- A complete line of foot- or hand-operated models in all sizes, for bottled or piped water supply!
- Sales literature and helps for you and your salesmen!



Advertised in  
TIME and  
NEWSWEEK

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WATER COOLERS

THE EBCO MANUFACTURING CO., 409 WEST TOWN ST., COLUMBUS 8, OHIO

Clip  
and  
Mail!

THE EBCO MANUFACTURING CO.  
409 W. Town Street, Columbus 8, Ohio  
Send me full details on the money-making  
Oasis proposition.

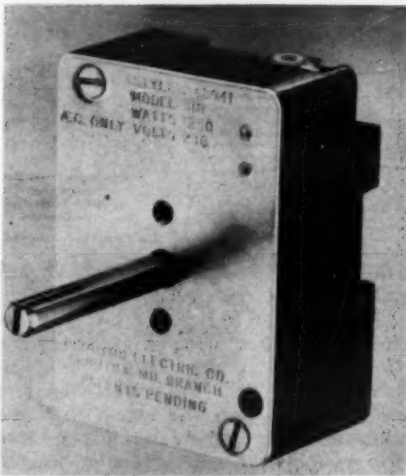
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CITY ..... ZONE ..... STATE .....

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## What's New (Cont.)

### Switch Provides Infinite Number of Heat Settings



KEY NO. C-515

PHILADELPHIA — An infinite number of temperature settings and uniform heat over the entire surface of an electric range coil are now possible with the new Proctor infinite control switch, the Proctor Electric Co. announced recently.

Made in two models—Model 510 for 1,250 watts and Model 520 for 2,100 watts—the switch can be set at any setting from zero to the maximum rated wattage. In contrast, other heat control switches are limited to from five to eight settings, the manufacturer noted.

The company says the switch is already used on Westinghouse, Admiral, and Sears ranges. It is also adaptable to other appliances designed for 236 volt operation, such as commercial electric ovens, heaters, and coffee ranges.

The new switch can be used with a single coil surface element or by wiring dual coil systems in parallel. On dual coil systems a uniform heat can be developed simultaneously in both elements.

The Proctor Model 510 and 520 switch is voltage compensating in all positions except 100% or "high" position. When set, the dial regulates a wide selection of electrical inputs.

Ambient temperatures which could affect the control bimetal position are offset by a second bimetal control which adjusts the cam-operated contacts.

Due to a patented feature, the make and break of the control thermostat (bimetal timer) is extremely clean. The heater for the control bimetal has a low mass and a reasonable thermal coefficient of expansion.

This results in rapid expansion and contraction during each cycle of operation. A spring loop couples the heater to the control bimetal and transmits a force producing contact over-closure and over-opening at a favorable rate.

The result is lengthened life and a minimum of radio or television interference. Cycle lengths are engineered to produce good performance on the

surface unit, yet are kept sufficiently long to contribute to the long life of the switch.

Measuring 2½ by 1¾ in., the Proctor Infinite Control Switch is housed in heat resistant bakelite with a metal cover. The switch incorporates a bimetal timer assembly operating on one line, and a disconnect switch on the other line.

Provision is also made for a pilot circuit. The switch is designed to overcome arc-over problems. Current carrying spring members are chrome copper, and fine silver contacts are used on both line circuits.

Tested and approved by Underwriters' Laboratories the new Proctor switch quickly adjusts to a higher or lower temperature level. One-half million cycles of contact operation (equivalent to 10-15 years of service) have produced very little wear in test models.

### By-Pass Valve Controls Yr.-Round Room Coolers



KEY NO. C-516

MANSFIELD, Ohio—A new by-pass valve especially designed for manual control of year-round room-type air conditioning units has been announced by Ohio Brass Co. here.

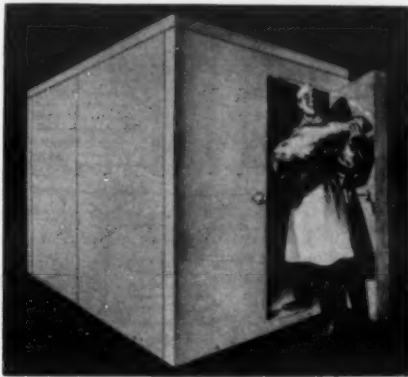
The new valve, designated as the No. 48 Line By-Pass Valve, permits some circulation in winter, even when the valve is closed, to prevent freezing.

In summer when the unit is used for cooling, the by-pass is turned to the closed position to eliminate the danger of excess condensation.

The valve also has a ¾-in. pipe plug outlet for venting or additional by-pass service. It is designed for pressure up to 150 lbs. and comes in the ½-in. size only.

The No. 48 valve and the "O-B Equatemp," the balancing valve that both controls water flow and shuts off tight, make an effective combination when used on the same heating and cooling units, the company says.

The No. 48 valve usually goes on the upper side of the coil and the Equatemp on the lower side. The valves can be used separately.



### Victor Pre-Fab Walk-Ins Made In Two Models

KEY NO. C-517

HAGERSTOWN, Md.—Two models of prefabricated, general utility, standard walk-in refrigerated rooms has been announced by Victor Products Corp. here.

They are intended to serve as a large refrigerator for dairies, fish markets, grocery stores, bakeries, taverns, and institutions.

Model RS-200 measures 6 by 6 by 7½ ft. and is made of six full size panels. Model RS-300 measures 6 by 9 by 7½ ft. and has two 4½ ft. wide panels for side walls.

Door opening is 2½ by 6 ft. and is located on the right side of any panel. Panels are butt-joined with square corners and are erected from the outside by use of bolts through tee nuts.

Insulation is 4 in. of Fiberglas between inside and outside covering of 24-gauge galvanized steel.

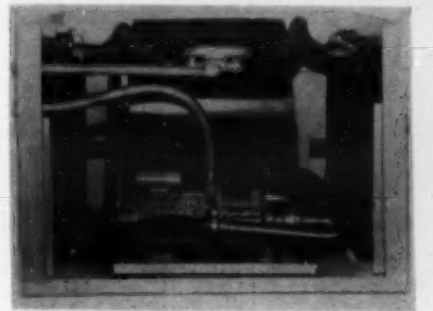
### Dayton Claims Lighter, More Efficient Pump

KEY NO. C-518

DAYTON—The Dayton Pump & Mfg. Co. has placed on the market a pump designed for re-circulating water for the cooling of compressors in residential and industrial air conditioning installations.

It will be known as the "Axial-Flow," according to Gerard J. Carney, general sales manager. It will be available in a wide range of horsepower. Both single and multi-stage models will be manufactured, affording a wide choice in capacity and pressure.

All pumping parts are made of brass instead of the customary iron castings. Since all water passages are micro-smooth, frictional loss is greatly reduced, Carney says. The "Axial



Flow" design increases efficiency up to 20% over pumps of similar horsepower, he claims.

The new "Axial Flow" is said to be up to 50% lighter and smaller than pumps of similar capacity.

### Mitchell Offers Canvas Cover for Air Conditioners

KEY NO. C-519

CHICAGO—A Mitchell room air conditioner cover that provides protection for the Mitchell unit during any long period while the air conditioner is not in use, is being offered by Mitchell Mfg. Co. here.

The cover, which fits all ½ and 1-ton units produced by Mitchell, features easy installation and low price. The cover can be installed or removed in a matter of seconds. It fits snugly over the outer cabinet of the room air conditioner and fastens with two adjustable straps.

Made of specially treated weather-proof 10-oz. canvas, the cover keeps the unit clean during the period it is not in use and eliminates storage problems.



*Crystal Tips*  
make everybody  
happier...



*especially  
you!*

You've made a customer happy when you show him what Crystal Tips Automatic Ice Maker means to him in profits... that it costs only a few cents a day to operate... and pays for itself in a short time. Your customer's customers will be happy, too, with this better ice—always fresh, crystal clear, sanitary and longer lasting.

That means that everybody is happier when you install a Crystal Tips Ice Maker—especially you, because there's nothing like a good word from a satisfied customer to start more business coming your way. Investigate the profit possibilities. Available now in two styles: with standard 110 lb. storage bin, or with the auxiliary storage bin of 360 lb. capacity.

*Crystal Tips*

THE "ROUNDED" CUBE MEANS BETTER ICE...

BETTER DRINKS... BETTER BUSINESS

AMERICAN AUTOMATIC ICE MACHINE CO.

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A subsidiary of McQuay, Inc., Manufacturers of Heat Transfer Equipment Since 1923



## LA CROSSE—THE LEADER— GIVES YOU MORE OF EVERYTHING YOUR CUSTOMERS WANT MOST IN COMMERCIAL REFRIGERATION!!



### DIRECT DRAW

Your sales are the payoff—with La Crosse Profit Designed Equipment. This La Crosse Direct Draw with Refrigerated Faucets guarantees a clear, sparkling glass of beer every time. Perfect temperature from keg to glass.

—no more excessive foam—no morning drawoff. More profit per keg for your customers means more direct draw sales for you. Join the leader—Write today for complete information.

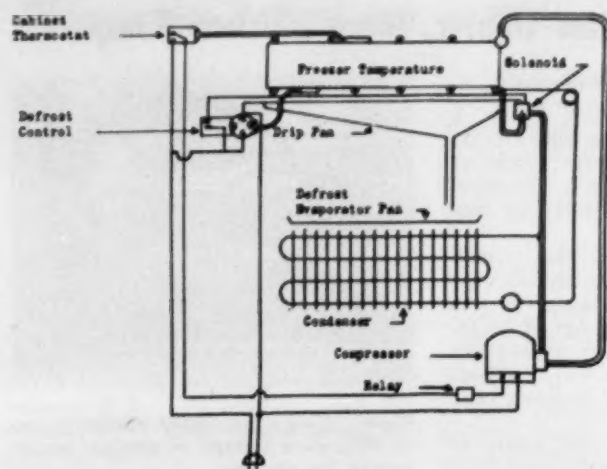
• CUBE MAKERS • BOTTLE COOLERS • REACH-INS • WALK-INS •

VISIT OUR BOOTH No. 884 AT THE NATIONAL RESTAURANT  
CONVENTION AND EXPOSITION—MAY 11-15—NAVY PIER, CHICAGO, ILLINOIS

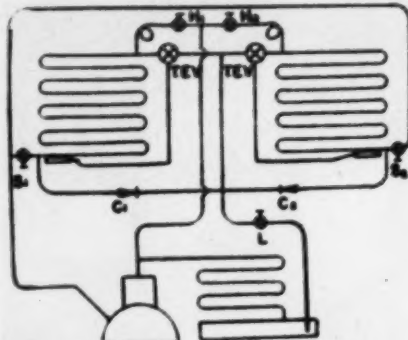
**LA CROSSE COOLER CO.**

Factory and Gen'l Offices: 2801 Losey Blvd. S., La Crosse, Wis.  
Export Office: 80 Broad St., New York City. Cable Address: Eximport

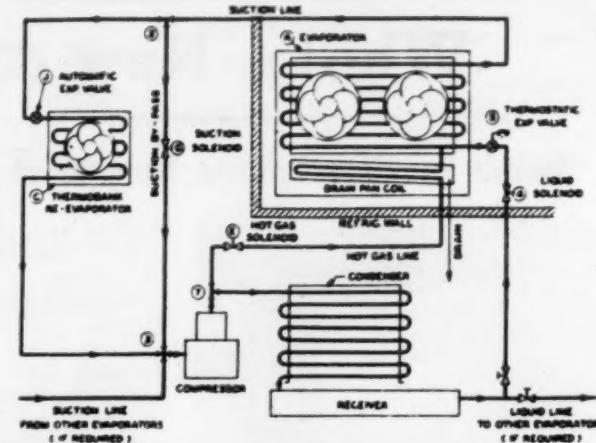




LEFT: Fig. 4—This is a fully automatic household refrigerator defrost system using hot gas.



ABOVE: Fig. 5 shows a "regenerative" hot gas defrost system used on commercial applications with multiple evaporators.



RIGHT: Fig. 6 is a re-evaporator type of defrost system as used with ammonia.

## Defrost Systems (2)

Operation of Various Automatic Devices for Household and Commercial Applications Are Described by R. G. Raney

"Fig. 4 illustrates a fully automatic hot gas defrosting household refrigerator. Once every 24 hours the clock driven defrost control closes the defrost solenoid circuit, opening the hot gas by-pass line.

"When the cycling or cold control starts the compressor, hot gas by-passes the condenser and passes through the solenoid valve, through a liquid receiver which adds extra refrigerant to the system during defrosting, then into the evaporator, causing it to defrost. The condensed refrigerant from the evaporator is re-evaporated by the heat of the compressor motor.

"Upon reaching a defrosted temperature the defrost control opens the solenoid circuit, closing the by-pass line, causing immediate resumption of normal refrigeration.

"The defrost water is collected into a container inside the refrigerator and can occasionally be emptied and the container kept clean and odorless.

"There are no electric heaters so there are no safety switches. The only form of safety is the 'fail safe' bellows used on the defrost control," Raney explained. "In the event this bellows fails, it will expand and prevent defrost starting, thereby maintaining refrigeration."

Next system mentioned by Raney was the refrigerator using a combination of electric heat and hot gas with the defrost control being a ratchet type which starts the defrost cycle after 60 door closings.

"Upon starting defrost the compressor starts and the heater is energized. Refrigerant comes from the compressor through the condenser and capillary restrictor to the heater location where it is heated and vaporized.

"The heated gas increases the pressure in the storage tank and drives out the extra refrigerant needed in the system to assure liquid return to

the compressor during defrost.

"The hot gas is condensed as it warms the evaporator. The refrigerant is re-evaporated partly in the heat exchanger section of the suction line and partly by the heat in the compressor. At a defrosted evaporator temperature, the defrost control opens the heater circuit, allowing the system to return immediately to normal refrigeration.

"The defrost water is collected and drained into a pan in the compressor compartment where it is heated and vaporized. The 'safety' for the heater is a fuse element next to the heater that opens the heater circuit on abnormal heater temperature.

### REGENERATIVE SYSTEM OF HOT GAS DEFROSTING

"Fig. 5 illustrates a regenerative system of hot gas defrosting. This system is used on such applications as ice cream hardening rooms, where there are several evaporators to handle the refrigeration load while one is being defrosted," Raney explained.

"In this schematic the normal refrigeration cycle would be from the compressor, through the condenser, through the receiver up the common line which feeds both evaporators, through thermostatic expansion valves, through the evaporators, and back to the suction side of the compressor.

"A hot gas defrost is accomplished by opening the hand valve in the high side line which by-passes the expansion valve into the evaporator, out through a suction valve which can be regulated to prevent slugging of refrigerant back to the compressor.

"The heat for defrosting is added into this system by the heat of vapor-

ization in the evaporators that are carrying the refrigeration load.

"In another system of hot gas defrosting, under normal refrigeration the hot gas comes from the compressor, through the condenser and receiver, through the liquid line and thermostatic expansion valve, into the evaporator coil where it evaporates and returns to the suction side of the compressor.

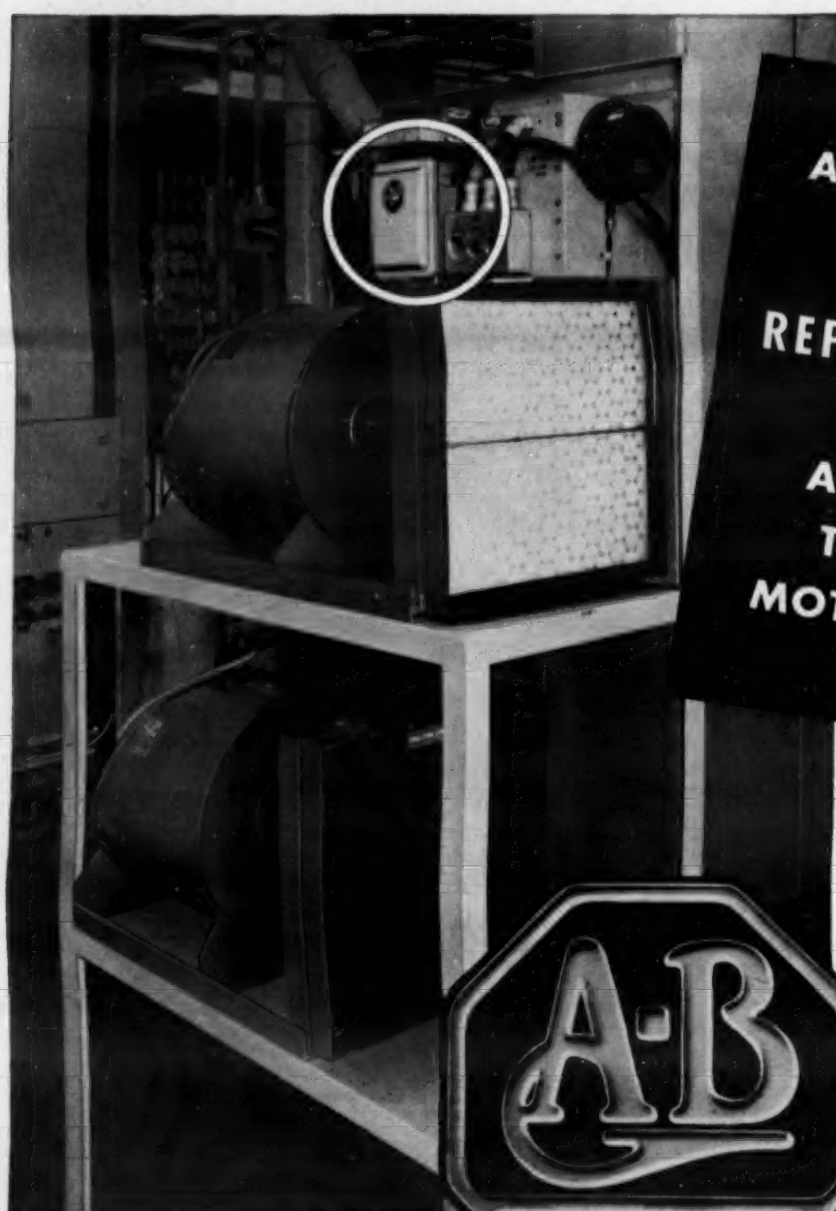
"The defrost cycle is started by a timer, causing five things to happen simultaneously:

"1. The compressor starts, if it is not already running, to assure a continuous supply of hot gas for defrosting.

"2. The hot gas solenoid valve opens.

"3. Hot gas starts to flow through the factory-installed, especially designed metering orifice, carefully sized for each unit to control the amount of hot gas entering the evaporator on the defrost cycle. This orifice prevents slub-back of liquid, thus protecting the compressor.

(Concluded on next page)



Air cleaning system for AT&T repeater station. Blower controlled by Allen-Bradley Starter.



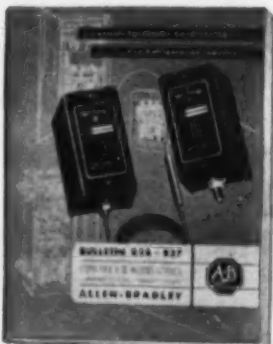
**Air Cleaning System  
Blowers for  
AT&T  
REPEATER STATIONS**  
equipped with  
**ALLEN-BRADLEY  
TROUBLE FREE  
MOTOR CONTROLS**

Clean air is needed to secure proper cooling of vacuum tubes in American Telephone & Telegraph repeater stations. Blowers, fitted with special filters and controlled by reliable Allen-Bradley controls, provide the required flow of clean air.

Why are Allen-Bradley starters so popular for air-conditioning service? . . . Because they do not require regular attention, they are trouble free. Only ONE moving part. No pivots, pins, or bearings to corrode or stick . . . no jumpers to break. You install them . . . and forget them! Furthermore, Allen-Bradley cadmium silver alloy contacts never need cleaning, filing, or dressing. Dependable overload relays remain accurate in their operation, even after long service.

Allen-Bradley Co.  
1313 S. First St., Milwaukee 4, Wis.

Write for This Allen-Bradley  
Air Conditioning and Refrigeration  
Bulletin



PRESSURE AND TEMPERATURE CONTROLS



A-B Bulletin 836 pressure control and A-B Bulletin 837 temperature control. Accurate, rugged, compact units.

AUTOMATIC STARTER



A-B Bulletin 709 solenoid starter. Note white interior for ease of wiring.

COMBINATION STARTER

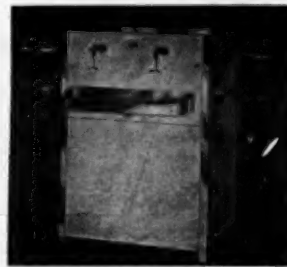


A-B Bulletin 712 disconnect switch type combination starter. Saves installation time.

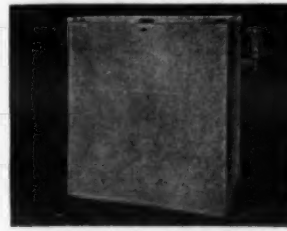
**ALLEN-BRADLEY SOLENOID MOTOR CONTROLS**

For Recognized Quality - Extra Gallons

**Sell Your Condensing Unit**  
- Filtrine Water Coolers



Mess Hall-Cafeteria Cooler



Photographic-X-Ray Cooler



Typical "Packaged" Circulating Chilled Water System

Sell your condensing unit with remote models for new and replacement jobs—all applications. Capacities 10-1000 g.p.h.; storage 7-300 gals. Filters, Rectifier-Dechlorinators available for all sizes.

Promote your own condensing unit sales with Filtrine's 20-year-life construction . . . high capacity . . . Super Storage . . . more than 40 years' dependability.

COOLERS FOR MESS HALLS — CAFETERIAS

Conform with Fed. Spec. 00-C-566b

COOLERS FOR X-RAY & PHOTOGRAPHY

PACKAGED CIRCULATING CHILLED WATER SYSTEMS

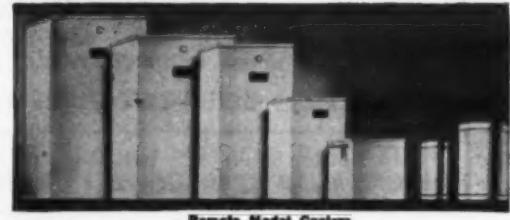
REMOTE COOLERS FOR ALL USES

Sell your condensing unit with Filtrine Stainless Steel or Duco finished cabinets, equipped to suit with top/side shelves, bubblers, glass-fillers. Can be Taste-Master equipped to remove chlorine, rust, sediment from water.



Sell your condensing unit with Filtrine models repeatedly named by V.A., Signal Corps, Air Force, etc. for X-ray and photo-labs. Under counter design and floor-mounted models with stainless steel work-table top. Filters (extra) to prevent scratched and pin-holed negatives.

Sell your condensing unit! Systems for drinking or processing water—completely packaged with pump, controls, your condensing unit factory installed. Capacities 5-400 g.p.h.; storage 5-150 gals. Filters and Rectifier-Dechlorinators (extra) to insure taste-free, sparkling water.



Remote Model Cooler

Write for catalog and Specification Guide



FILTRINE MANUFACTURING COMPANY • BROOKLYN 5 • N. Y.

"Water, Coolers and Filters for 40 Years"





## Automatic Defrosting Systems --

(Concluded from preceding page)

"4. A circuit to the electric heater plate is closed. Its warm surface prevents water from freezing in the drip pan.

"5. The blower fan cuts off to prevent warm air and water from getting blown into the refrigerated area.

"As soon as the defrosting cycle is completed the time control automatically restores the refrigerating cycle.

"In still another system of hot gas defrosting, the heat added into the system during the defrosting comes from the air in the compressor compartment as it is forced through the re-evaporator.

### TRACING NORMAL REFRIGERATING CYCLE

"In tracing through the normal refrigerating cycle it will be seen that the refrigerant is compressed and sent through the condenser, through the receiver and drier, on through the heat interchanger into the evaporator and back out through the suction line which passes through the re-evaporator and back to the low side of the compressor.

"On the time-controlled defrost cycle the hot gas from the high side of the compressor by-passes the condenser and receiver as the solenoid in the hot gas line is opened, allowing the hot gas to pass through the coil attached to the bottom of the drip pan and up into the regular refrigerating circuit on the low side of the expansion valve.

"It will be noted that the hot gas warms the entire drain line in the refrigerated area and the drip pan first, then passes into the evaporator where the gas is condensed and the heat of condensation results in melting the frost and ice from the evaporator. The liquid refrigerant passes from the evaporator, or, in this instance, the condenser, through the heat interchanger and back into the re-evaporator where warm air

(above 40° F.) is passed over this coil, re-evaporating the refrigerant before it returns to the compressor.

"It is essential that all hot gas defrost systems described here be located where the air temperature will not get below 40° F. at any time. Normally the re-evaporator should have about one-third the capacity of the evaporator in the fixture," Raney said.

"It will be noted that there is a pressure regulating valve in the suction line just ahead of the re-evaporator which will prevent the possibility of flooding the re-evaporator and allowing liquid refrigerant to return to the compressor. It will be noted also that there are water drain lines from the drain pan under the evaporator and also under the re-evaporator.

"The time required for defrosting this system is generally estimated to be 15 minutes or less. The defrost cycle can be adjusted to occur every three or six hours of condensing unit running time and the length of defrost time can be adjusted from two to 26 minutes. Following the defrost period there is a fixed wait period of approximately seven minutes which allows the unit to cool and the water to drip from the coil before the start of normal refrigeration."

### "TRUE-REVERSE CYCLE" DISCUSSED

Raney also discussed what he called "a true-reverse cycle" for obtaining a hot gas automatic defrost.

"From a defrost standpoint the important features of this system incorporate (1) a four-way solenoid pilot type valve used to reverse the direction of flow of refrigerant, (2) an automatic expansion valve that will meter reverse flow through the condenser and allow free flow during refrigeration; (3) a receiver that will permit liquid refrigerant flow in either direction through both connections, and (4) a thermostatic expansion

valve that has a ball-check arrangement which permits metering of refrigerant during the cooling cycle and free flow of refrigerant in the reverse direction during the defrost cycle."

"Tracing out the refrigerant flow on the cooling cycle one can see that the high-side gas comes through the four-way valve into the condenser and from there through the receiver, then through the liquid line to the expansion valve, through the blower coil and back to the low side of the compressor.

### REFRIGERANT COMES FROM HIGH SIDE ON DEFROST CYCLE

"On the defrosting cycle the refrigerant comes from the high side of the compressor through the four-way valve which has reversed the flow, up through the suction line, and through the evaporator where it condenses and in so doing, defrosts the evaporator (which on this cycle becomes the condenser).

"The liquid then flows freely through the expansion valve in the reverse direction back through the receiver, through the automatic expansion valve and condenser which now is acting as a re-evaporator where the liquid is vaporized and returned to the suction side of the compressor.

"One control system for this fully automatic reverse cycle defrost system takes advantage of the drop in suction pressure as the evaporator builds up frost and ice. When the suction pressure drops to a certain pre-determined point the reverse-acting low-pressure control cuts in, energizing the four-way valve which reverses the flow of refrigerant.

"As the frost and ice melt off the

evaporator and its temperature comes up, the suction pressure correspondingly rises and causes the reverse-acting low pressure control to open the circuit, returning the four-way valve to normal refrigeration circuit. This defrost system can also be controlled manually or by a timer to start and stop the defrost period," Raney said.

Another hot gas system described by Raney applies the principle of building a reserve of heat during the normal refrigeration operation and using this heat to re-evaporate the liquid in the suction line during defrost, before it enters the compressor.

"Normal flow of the refrigerant on the refrigeration cycle is as follows: Hot gas from the high side of the compressor passes through a coil inside a tank where the anti-freeze liquid in the tank absorbs heat. The gas then passes on to the condenser and receiver through the liquid line and heat exchanger through the expansion valve into the blower coil and back through the suction line into an inner-chamber in the tank where heat is stored.

"The suction line comes from the top of this inner-chamber so that only refrigerant vapor can come back to the low side of the compressor. There is an oil return line from the bottom of this inner chamber back to the compressor.

"On the time-controlled defrost cycle a solenoid in the hot gas line opens, allowing the hot gas to by-pass the line containing the expansion valve, and pass through the hot gas line which is in thermal contact with the drain line, into a coil on the bottom of the drip pan and from there through the evaporator where defrosting occurs as the hot gas is condensed to a liquid, return-

ing through the suction line to the inside chamber where the liquid is again vaporized and returned as vapor back to the compressor.

"Control of the defrost cycle in this system is a time switch which can be set for various frequencies of defrost and is wired into the circuit so that it measures only compressor running time between defrosts, as is believed to be a fairly accurate measure of frost build-up on the evaporator.

"Normally, the defrosting operation is accomplished in four to six minutes after which the clock automatically closes the solenoid in the hot gas line and starts the blower coil fan, thus restoring normal refrigerating operation.

### RE-EVAPORATOR TYPE SYSTEM FOR AMMONIA

"Fig. 6 illustrates a re-evaporator type of defrost system for ammonia.

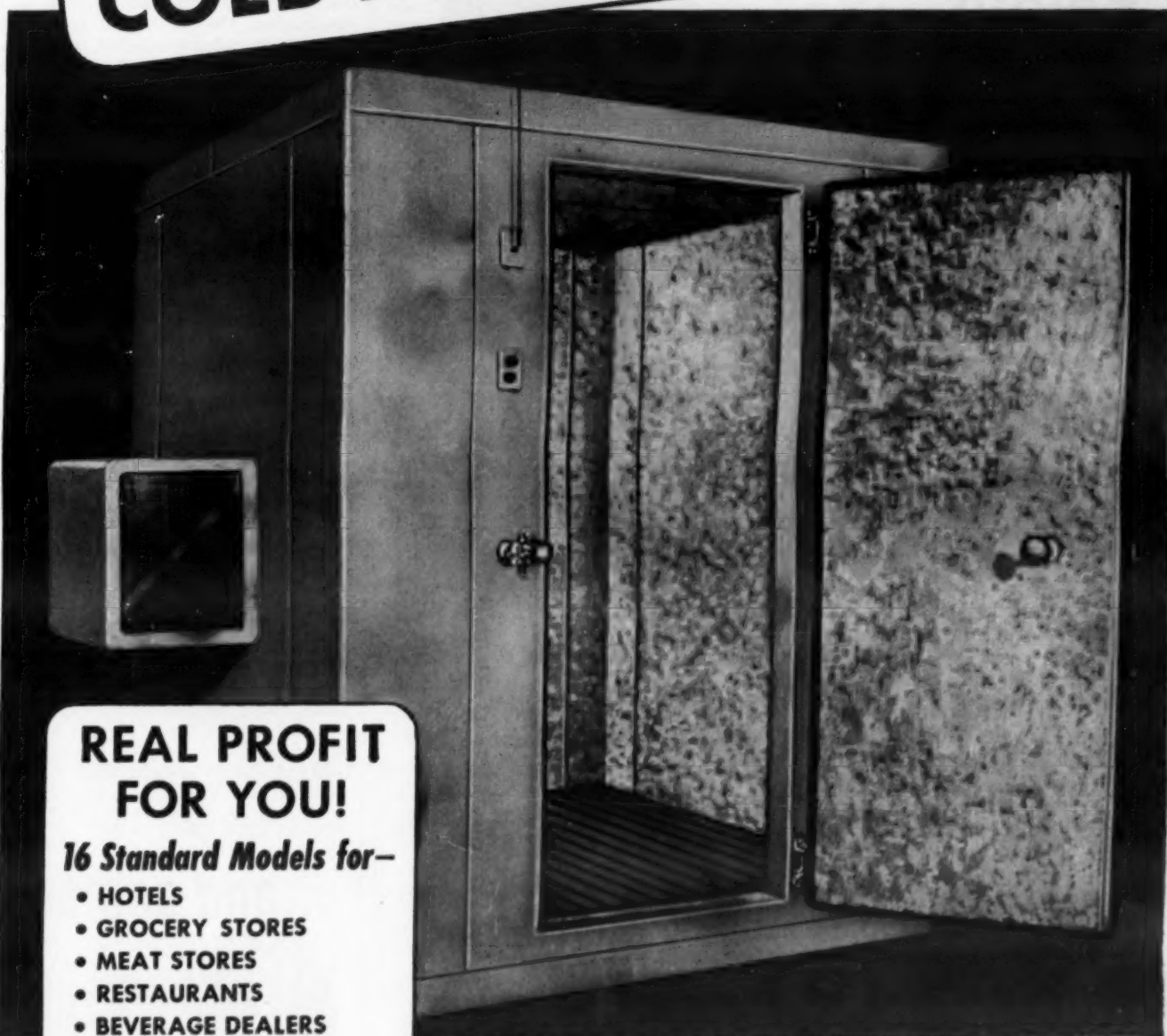
"This system of defrosting is essentially the system described earlier. The reason this system is of particular value in an ammonia system is that with the pressure regulator in the suction line ahead of the re-evaporator it is possible to obtain satisfactory defrosting with the re-evaporator located in a cold area, possibly outdoors, where the temperature may be 0° or slightly lower and still not reduce the suction pressure to the compressor below 0 gauge pressure.

"In other words, there is sufficient heat in 0° air to vaporize ammonia rapidly enough to effect a defrost of the coil within a reasonable length of time. Also, it should be noted, the suction by-pass permits unrestricted flow during normal refrigeration. The valve in this line is a normally open solenoid valve."

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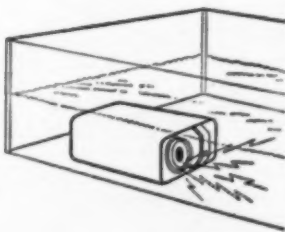
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## SLANTS on Service

"Slants on Service" is a handy "package" devised by the NEWS to meet the needs of its busy readers.

### Recording Clock Helps

#### Sell Replacement Units

A good recording clock will pay dividends to the serviceman in increased sales and make his customers happy.

Often the serviceman runs across a job that won't pull its load although he knows that the machine did when it was new. Obviously it needs a new compressor but the owner objects.

To get around this problem one serviceman installs a recording clock on the old machine and gets an accurate record of how long the unit is running.

He then tells the owner that a new machine will save him so much money in operating cost, and, as a

clinger, offers to install the machine and take it out at no cost to the owner, if the promised saving doesn't materialize.

"Of course, since I had the recordings, I knew I was not taking a chance and since I knew there'd be a saving, I could truthfully tell the owner so. I've never had one to take back and I've been at it over 20 years," this serviceman says.

### Small Pipe Wrench Will

#### Loosen Stuck Valve Stems

Sometimes a serviceman will run across a 1/4-in. valve stem on some boiler header that is stuck in the valve and won't budge. If he uses his wrench, the stem may break and become rounded so that it won't hold a wrench.

A good 6-in. pipe wrench will solve the problem. First remove the packing nut and then loosen the valve stem with the pipe wrench. After replacing the packing nut, the conventional 1/4-in. ratchet wrench will work without causing any harm.

Be sure that the pipe wrench is of high quality because the valve stem metal is quite hard.

## Evaporative Condensers

### Their Selection, Installation, Maintenance

By John Engalitcheff, Jr., President, Baltimore Aircoil Co., Inc.

#### PERIODIC MAINTENANCE

It is highly recommended that a regular schedule of periodic maintenance-procedure be established and strictly adhered to.

Following is a list of major check points and the approximate frequency of attention; however, the intervals are subject to adjustment as they are minimums and if operating conditions are severe the frequency should be increased.

Once every month:

(1) Check bearings (on summer operating jobs repeat same at start and end of season) and lubricate if necessary.

(2) Clean and flush the pan.

(3) Clean strainer. (If atmosphere is extremely dusty it may be necessary to clean strainer once a week.)

(4) Check spray nozzles, clean same if necessary.

(5) Check belt adjustment.

(6) Look over the unit carefully and if any other work is necessary do it at once.

Once a year:

(1) Repeat monthly procedure.

(2) Check system for non-condensables and if necessary purge the system. (If at any time there is reason for suspecting that non-condensables are present, the system should be checked for it, and if any are present thoroughly purged.)

(3) Check fan shaft collars.

(4) Check float valve.

(5) Clean and paint unit.

#### MAINTENANCE PROCEDURE

Fan bearings on Model U & UL evaporative condensers and pump bearings on Model P, U & UL evaporative condensers are oil lubricated sleeve type and require regular oiling.

The oil cups provided for lubrication of the fan shaft bearings and pump bearings should be filled with a good S.A.E. #40 motor oil. Do not use cup grease as this will not feed through the oil line and consequently the bearings will not receive any lubrication. Check the oil reservoirs daily during the first week of operation. After the first week, the oil cups should be filled in accordance with the schedules as outlined before.

Fan bearings on Model P evaporative condensers should be lubricated with lithium base grease only. It is extremely important that the grease used in these bearings be of a water proof type and contain an inhibitor. We recommend Lubriplate "Aero" or Keystone #84-H Extra Light or Double Extra Light. (Either of which are available at your local mill supply house.) However, any grease with similar characteristics would be satisfactory. Do not use common ball bearing soda base grease.

Grease bearing thoroughly while unit is running:

1. When unit is started up in spring.
2. When unit is shut down in fall.
3. During each month of operation.

When preparing for seasonal shut-down or spring start up:

1. Lubricate bearings thoroughly while unit is running.
2. Stop unit and fill bearings completely with grease.

Small quantities of water will accumulate, from time to time, in the bearing due to condensation and the purpose of this excessive greasing

procedure is to flush out these water droplets and prevent them from remaining in the bearing. Then too, a bearing which runs on a vertical shaft requires considerably more grease for proper lubrication than the same bearing if it were mounted on a horizontal shaft.

Fan motor bearings are shipped prelubricated for operation of six months. After that period lubricate motor bearings once every six months. Never fill the bearing housing more than 1/2 to 3/4 full of grease at these six-month intervals. More damage usually occurs to these bearings due to over-lubrication than under-lubrication as too much grease will cause excessive heat in the bearings.

Pump motor bearings are prelubricated for life, and require no further attention.

#### CLEANING STRAINER

The pump strainer should be kept clean because if dirt is allowed to accumulate on the strainer screen it reduces the capacity of the pump; and if allowed to continue to build up, dirt on the screen will eventually be drawn through the screen and will clog up the spray nozzles. The strainer should be inspected weekly in dirty or dusty locations and every two weeks in areas relatively free from dust and dirt. It should be cleaned whenever inspection reveals that it has become dirty.

#### FLUSHING PAN

The pan should be drained and flushed out so as to remove accumulated dirt and impurities at least once a month.

### Hermann Given New Post With Tenney Engineering

NEWARK, N. J.—Tenney Engineering, Inc. here has promoted Fred Hermann to refrigeration application engineer, Environmental Test Chamber Div.

Hermann's new duties include load determination and design of refrigeration systems for Tenney test chambers. He also will work on development and research projects connected with present and proposed low temperature systems for chamber application.

Formerly, Hermann was field engineer in charge of installation and service of Tenney chambers. Prior to joining Tenney, he was laboratory technician and later, assistant to the plant engineer of Kramer Trenton Co.

He has a B.S. degree in mechanical engineering from Rutgers university and is a member of ASRE and ASME.

### Thimer Picked To Head Div. of Southland Supply

DALLAS—George M. Thimer has been appointed manager of the air conditioning and heating division of Southland Supply Co., according to Barrie V. Henegar, president.

Henegar said his firm will now offer a complete engineering service to air conditioning and heating contractors.

## Hospital Conditioning Uses Radiant Energy And Subterranean Water

GLEN OAKS, N. Y.—A unique all-year air conditioning system utilizing radiant energy and subterranean water is the top feature of an ultra-modern \$7 million general hospital being completed here.

The new structure is the 500-bed Long Island Jewish Hospital—a nine-story, brick, steel, and stone building built on some eight and a half acres.

During the summer the underground water (natural temperature of 50°) is circulated through ceiling and wall coils to cool the rooms, while in the winter the same coils are utilized for circulation of heated water.

An elaborate control system developed by Minneapolis-Honeywell engineers utilizes some 300 thermostats to regulate the panel heating or cooling in each of the hospital's rooms and work areas. In addition the temperature of the air fed into the rooms is further controlled by an outside sensing element that regulates air temperature and humidity in proportion to weather change.

The water for the radiant panels is pumped from the earth by a modified heat pump arrangement that is expected to reduce fuel bills.

According to Louis Allen Abramson, New York architect who planned the new building, the method of cooling without aid of refrigeration is brand new. He also pointed out the harnessing of radiant energy itself introduces a different approach to temperature control that should bring about higher standards of comfort.

Previously, Abramson said, comfort was considered primarily as an air temperature problem. Now, with this new system, comfort can be maintained with no regard for air temperature.

It's the same principle which makes the thinly clad skier comfortable, Abramson said. Despite the cold air, the radiation of the sun's rays from the snow makes the skier feel warm.

Handy Bender says



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"I've saved time and money on practically every installation since I bought a Handy Tube Bender. No more 'el' fittings for me... I bend as I go, right on the job. Handy Benders bend any pipe or tubing, from 3/8" to 1 1/2" O.D.—even Type L copper. Makes a smoother, cleaner job, too. Try it yourself! You'll save time and money."

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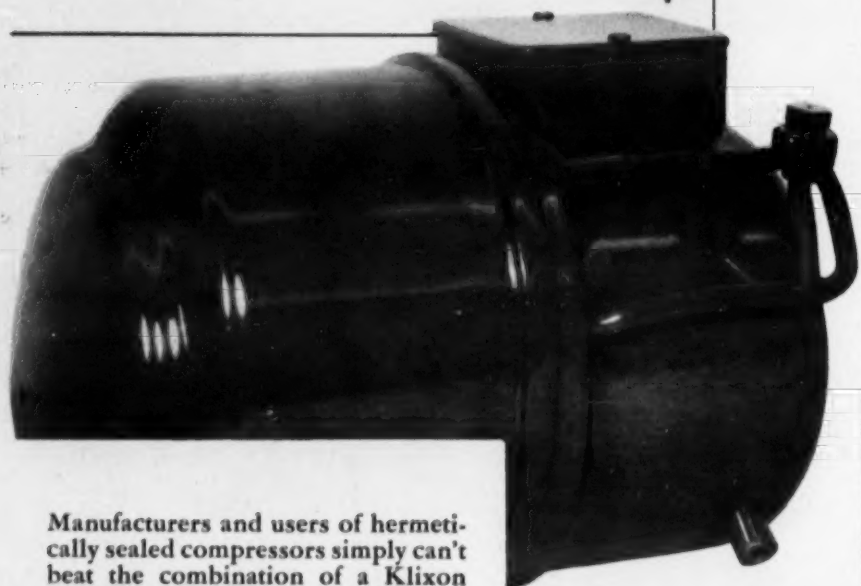


Handy Bender

## Here's the Solution to Trouble-Free Refrigeration

# KLIXON

### Dome-Mounted Protectors and Motor Starting Relays



Manufacturers and users of hermetically sealed compressors simply can't beat the combination of a Klixon Dome-Mounted Protector and Klixon Motor Starting Relay for dependable motor protection and motor starting of the compressor.

The Klixon protector prevents motor burnouts. It helps to provide dependable refrigeration year in, year out by guarding the motor from becoming dangerously overheated. It prevents food spoilage, reduces repairs and replacements.

The Klixon motor starting relay starts the motor surely and quickly. Its positive action and long life eliminate starting troubles.

Manufacturers of refrigeration units are invited to find out more about these Klixon products. Write on company letterhead for further information.

# KLIXON

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Division of Metals & Controls Corporation  
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### KLIXON Defrost Thermostat Controls

The new Klixon Defrost Thermostat provides positive control regardless of refrigeration location. Its operation is unaffected by altitude or cross-ambient temperatures. Easily installed by strapping to evaporator. Can be used for automatic or manual defrosting systems.

Actuated by the scientifically calibrated Spencer Disc, the Klixon Thermostat repeats its temperature performance accurately. Proof—millions of Klixon disc-type thermostats are being used by leading appliance manufacturers.

## ...and one was just right!



Like Goldilock's porridge—refrigeration temperatures must be neither too warm nor too cool. Your customers expect just right results, and they'll get them with Ranco. Controls by Ranco serve in more than 50,000,000 installations throughout the world—positive proof that Ranco is preferred... Choose dependable Ranco controls yourself—available for over 4,000 replacement installations.



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MANUFACTURERS OF REFRIGERATION CONTROLS



## Service & Supplies

### Welding, Soldering, and Brazing

#### Wide Use of Hermetically Sealed Electric Feed-Through Terminals Highlights Attachment, Closure Problems

By Andrew Wyzeenbeek, Chief Engineer, Fusite Corp., Cincinnati

The increasing use of hermetically sealed electrical feed through terminals has focused attention on attachment and closure problems.

Welding, soldering, and brazing are all employed. These methods are used to either fasten the terminal panels to the enclosure or attach component mounting studs or brackets to the terminal panel.

#### THREE TYPES OF WELDING

Of these three methods, it is our experience that resistance welding is the best in most applications. Three types are used:

1. Annular projection welding.
2. Spot-projection welding.
3. Spot welding.

Welding offers several advantages. It is fast. It is less expensive than either brazing or soldering. It eliminates various methods of fastening that require additional holes through the metal envelope and re-sealing of these holes. It provides uniform production and can be accomplished with unskilled labor. The parts to be welded can be stock sub-assemblies. The actual welding can take place at a point in the production line that is most economical.

#### RESISTANCE WELDING ELIMINATES FLUXING

The weldments can be made through protective coatings such as tinplate. Resistance welding eliminates fluxing. Sometimes fluxing can be harmful to the electrical properties of the glass seal. Flux is also undesirable within the hermetic enclosure because it can contaminate the sealed atmosphere.

In most applications, the hermetically sealed electrodes are fused in a panel to create a multiple terminal. This panel is then attached to the unit requiring the electrical feed through. While the panel is usually very flat, many refrigeration manufacturers use a relatively deep cup to hold the electrodes.

Heat used in joining can be an important factor. Soldering is accomplished at about 500° F.; brazing starts at 1,200° F.; resistance welding, although requiring substantially higher temperatures, can be used because the heat is confined to a small local area. The time required may be only 1/50 of a second. The heat is applied in a small spot and results in complete fusion of the metal. The closer the weld to the glass the more ideal the weld has to be.

A good weld can be obtained with

a minimum of heat and time. The hot forging that such a weld can provide brings intergranular penetration and alloying of one metal to another for the strongest possible bond.

Welding is used to limit the heat shock in the glass-to-steel bond area. This heat shock cannot be controlled in such an operation as brazing. With welding, the heat is dissipated from the confined weld area without materially raising the temperature of the entire panel. The bond is also stronger than the neighboring parent metal. This is particularly important in welding component mounting structures to the panel.

#### BRAZING RAISES COSTS

Brazing can be used but it should be done prior to the terminal manufacturer's fusion of the glass to the metal electrodes and panel. This involves extra operations and complicated tooling which, in turn, ride up costs.

Hermetic terminals are in wide use for many applications like switches, capacitors, relays, filters, and meters. Some of these applications require only that the terminal panel be joined to the unit; others need component mounting means joined to the panel. This latter type application is growing considerably due to emphasis on miniaturization and weight reduction. It is in this type of work that welding is proving itself as an ideal method of joining.

Relay manufacturers often use welding when they wish to attach component mounting structures directly to the underside of the finished glass-to-metal terminal panel. The weld provides a solid joint without a hole through the hermetic enclosure. The parts are capable of being welded and it saves the extra operation of punching a hole.

#### JOINING PLATED PARTS

Of the three types of welding, annular or spot-projection welding is used where plated parts are to be joined. If it is necessary that the parts be plated prior to assembly, this need not interfere with securing a good weld.

Contour and dimensional control is frequently more critical in spot welding than in projection welding. The use of dimples in projection welding combined with relatively simple fixtures accurately pinpoints the weld. In projection welding, there is often

wide latitude in specification of the weld regarding time, heat, and pressure. This provides a more flexible procedure.

#### ADVANTAGES OF PROJECTION WELDING

Projection welding permits use of harder and larger welding tips than in common spot welding. Much longer runs are obtainable before production must be interrupted for dressing of tip faces. This means less maintenance cost and smoother production.

The size of that section of the component mounting bracket to be welded is limited only by the area available on the terminal panel. It is not unusual to make three or four welds in an area the size of a dime. The number of welds is, of course, determined by the part to be welded and the strength required. If more than one projection is used, all projection welds are made simultaneously.

Fixtures and jigs used in welding are relatively economical. They require little initial cost and maintenance. Extreme tolerances can be made in the fixtures. In one application, a ground pin and two guide pins were welded to a plug body in combination with three glass sealed prongs. This provided a gas-tight joint which was absolutely necessary. All positioning was held to within .002 in.

Welding of lead wires or lugs to the electrodes of the hermetic terminal is often used. By resistance welding, a mechanical joint is effected that is not affected by subsequent soldering operations. It is also less affected by extremes of temperatures. This type weld is needed in extremely rigorous applications.

#### CROSS WIRE WELDING

While spot welding is used, projection welding is also applicable. Cross wire welding could also be used. This is similar to that employed in the internal structure of electron tubes and incandescent lights. However, special, sensitive welding equipment is needed.

In summary, welding:

1. Is economical.
2. Permits assembly which need not violate the hermetic enclosure.
3. Can be used for joining components or lead wires.
4. Can be used for joining plated parts.
5. Can aid in miniaturization of units.
6. Has high production capacity.
7. Permits a junction without fluxing.
8. Can aid in achieving weight reduction of sealed units.

#### Ryback Appointed Sales Manager Of Wagner Tool & Supply Co.

LONG ISLAND CITY, N. Y. — Anthony S. Ryback has been appointed sales manager of Wagner Tool & Supply Co., William Wagner, president, announced recently.

Ryback has had wide experience as a manufacturer's representative in the refrigeration field. Following this, he was sales manager for the Techniflex Corp.

In his new position, Ryback will handle all phases of Watco product sales to the refrigeration industry.

#### Wolverine Division Shifts Kromer, Frink, Zattel

DETROIT — H. Y. Bassett, vice president of operations, Calumet & Hecla, Inc., has announced three changes in the executive management of Wolverine Tube Div. of the company.

A. S. Kromer has been named manager of the



A. S. Kromer

Russell M. Frink

Decatur, Ala., plant. Russell M. Frink has been appointed director of operations, and Vincent A. Zattel has been named



Vincent A. Zattel

Detroit plant manager. Kromer started with the company in 1934 during his student days at the University of Detroit as a cooperative engineer. After graduation as a chemical engineer, he served in capacities of increasing responsibility throughout the organization.

Before appointment to his new position, Kromer served as Decatur factory manager.

Frink, formerly Detroit plant manager, will have charge of coordinating the operations of the Detroit and the Decatur plants, and of directing the development activities of the division. He replaces D. W. Blend, general manager of Wolverine Tube.

Frink started with the company in 1939. He has been plant manager since 1950.

A graduate of Wayne university, Zattel obtained his master's degree in metallurgy from the University of Michigan. He has been with the company since 1937. He served as supervisor of production and has been customer relations manager.

#### Condensers Cleaned By 2 'Ace' Products

ATLANTA — Wider distribution through parts wholesalers of two products designed to clean refrigeration condensers has been started by Atlantic Chemical & Equipment Co.

"Ace condenser cleaner" is a powdered acid detergent designed to clean condensers (both shell-and-tube and shell-and-coil) and evaporative condensers by removing scale, slime, and algae in a period of 2 to 6 hours while the system operates.

To keep condensers clean and operating at top efficiency, the company also offers the "Ace condenser treatment block." This is molded in gallon cans. To use, the cap is removed and the can itself placed in the drip pan. Depending on the size of the system and the hardness of water, one block is effective for at least 300 hours, the company claims.

The Ace cleaner powder is dissolved in the water circulated through the condenser or evaporative condenser and the system operated for 2 to 6 hours, depending on the thickness of scale, quantity of slime, and general contamination, the company says. Recommended concentration is 20 lbs. of cleaner for each 100 gals. of water in system.

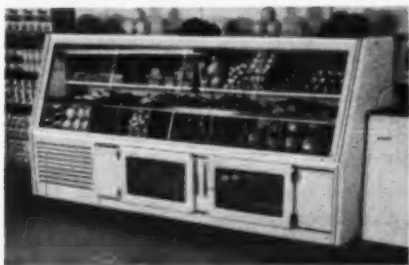
Because the cleaner will attack galvanized coatings, it is necessary to use a neutralizer following treatment. Neutralizer is included in the 10 and 20-lb. drums in which the condenser cleaner is supplied, the company says.

After a system has once been cleaned by this treatment, use of a "condenser treatment block" will prevent corrosion and scale formation as well as destroy slime and algae and thus keep compressor head pressure down.

The company provides a table recommending the number of "treatment blocks" to be used in various size systems, depending on water hardness. In a 5-ton system, for example, only one block is recommended when water hardness ranges from 1 grain per gal. (17.1 p.p.m.) to 12 g.p.g.

"In 3-ton systems and systems up to 15 tons with water hardness less than 5 g.p.g., one block is usually effective for longer than 300 hours," the company states. "Add a new block when yellow color disappears from water."

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but this is **BETTER!**

#### THE NEW "Serviceman"

Yes, thousands found the former Marsh "Serviceman" to be the handiest and best testing thermometer on the market... but that hasn't stopped us from making it a whole lot better!

Just compare the old and the new and you'll see what we mean. The new Serviceman, with its razor sharp markings, bright hair-line pointer, and iridescent gun-metal finish, looks better; but this is only the outward evidence of improvements all the way through.

It now tests to forty below! By a new process, the bourdon tube has been made permanently leak-tight. An internal stop protects instrument from excess temperatures. Recalibrator is now in the back (see cut) so instrument can be corrected without removing crystal.

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Arrow points to conveniently located "Recalibrator".



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## Double Freezer Production

**Revco Completes \$450,000 Expansion; Close Dealer, Distributor Relations Stressed**

**Amana To Triple Freezer Output, Add 8,000 Outlets**

**Freezer Food Warranty Established by Quicfrez**

**Gesco, Safeway Stores, 20 Washington, D. C. Dealers Join In Freezer-Food Plan**

**Supermarket Chain Offers Frozen Food Discount Plan**

**Schaefer Upright Freezers Have Increased Capacities**

**Montgomery Ward Catalog Shows 4 Freezer Models**

**Sub-Zero Builds New Plant To Double Production**

**McCray Enters Domestic Freezer Field with Upright**

**Home Freezers Outsell All Other Major Appliances In Utah Area**

**NEMA Freezer Sales for 11 Mos. Set New Record**

**Jordon Freezers Get a \$750,000 Budget for '53**

THEY SHOUT TO THE WORLD THAT THE HOME FREEZER INDUSTRY IS A BIG INDUSTRY . . . THAT IT'S PROGRESSIVE, COMPETITIVE, GROWING . . . AN INDUSTRY THAT BELIEVES IN ITS FUTURE . . . WHICH INTENDS TO REALIZE ITS TERRIFIC MARKET POTENTIAL!

Each year, **AIR CONDITIONING & REFRIGERATION NEWS** compiles and publishes comparative specifications on all major makes and models of home freezers. Extra copies of this issue are purchased in large quantities by dealers, and used and consulted for many months afterward. It's the "Buy of the Year" for freezer manufacturers.

**This Year's FREEZER SPECIFICATION ISSUE IS**

# MAY 25

**TRADITIONAL ISSUE:** Traditionally, Home Freezer Manufacturers have used the FREEZER SPECIFICATIONS ISSUE to do a thorough, detailed merchandising job on their own freezers — just as have industry suppliers to these manufacturers for their products — by using a dominant advertisement in this annual issue.

**PROVIDES SELLING TOOLS:** The experience gained by the previous Specifications Issues has convinced Home Freezer Manufacturers that they can sharpen their sales attack on the many distinctive features of their freezers and give their distributors and dealers added selling tools, more individual selling ideas . . . in the issue where specific comparisons with the other brands are easily made!

**HOME  
FREEZER  
MANUFACTURERS:**

Here's your chance to glamorize — to add selling punch — to highlight your freezer's features — to personalize the detailed specifications of your Home Freezers . . . with a *dominant, tell-all, hard-selling* advertisement in this year's FREEZER SPECIFICATIONS ISSUE of May 25! Advertising Closes May 15 — Reserve Your Space Today!

**MERCHANDISING OPPORTUNITY:** While all 52 weekly issues of the "NEWS" are excellent and dependable in reaching the industry's prime, volume-moving sales outlets . . . the **MAY 25 FREEZER SPECIFICATIONS ISSUE** provides a grand opportunity for Home Freezer Manufacturers to do "something special" . . . to do an aggressive merchandising job on the really exclusive features of their units . . . to inform the entire industry that their company is a real "believer" in the future of the Home Freezer . . . that it is an active promoter of the Home Freezer, etc!

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Chicago 3, Illinois  
FR 2-8093



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THE NEWSPAPER OF THE INDUSTRY



Eastern Office:  
521 Fifth Avenue  
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MU 7-7158





## 4 Methods for Drying Hermetic Systems Recommended After 4 Types of Repair Jobs

HOLYOKE, Mass.—“When a sealed hermetic refrigeration system is opened to the atmosphere for any length of time for any reason whatsoever, steps must be taken to evacuate and dehydrate the system so as to leave no traces of air or moisture,” emphasize E. C. Hamilton and R. E. Holmes of Worthington Corp. in the company's “Climate Chart” magazine.

The method of drying the system, however, varies somewhat, “depending upon the nature of the work done on the system and upon the length of time that it has been exposed to the atmosphere,” they comment.

Different drying methods are given for four different sets of circumstances: (1) the system opened for a short time to replace an expansion valve, etc.; (2) compressor opened for a short time; (3) major compressor repair other than burned-out motor; (4) major compressor repair with burned-out motor.

The recommended methods are as follows:

(1) **System opened for a short time for the replacement of expansion valve, strainer, etc.**

(a) The system will have been pumped down and the compressor not have been exposed in this case. Evacuate with a good grade vacuum pump capable of producing a vacuum at least as low as 0.1 in. of mercury absolute pressure. Continue this evacuation until 0.1 in. of mercury absolute pressure is reached, but allow the process to continue for at least one half hour. Shut off the pump, allow some refrigerant to enter the part of the system just evacuated until atmospheric pressure is reached.

(To measure low pressures, such as those required here, always use a mercury manometer. Never use a vacuum pointer-type gauge.)

(b) Shut off the refrigerant valve again, start the vacuum pump, and pump out this refrigerant until the 0.1 in. of mercury absolute pressure is again reached. Close off the system, stop the pump, open the system valves, and put the machine into operation.

### WHEN COMPRESSOR HAS BEEN OPEN A SHORT TIME

(2) **Compressor open short time for service on valves, strainers, oil pump, etc., or a complete, dehydrated, replacement compressor installed where no motor burnout has occurred.**

In this case, the compressor motor winding, which contains some cellulose compounds which are hungry for water, has been exposed to the air and will have absorbed moisture from it. The amount of moisture absorbed depends upon the temperature and relative humidity of the air at the time and upon the length of time the compressor was open.

Evacuate as described above for at least four times as long a time as the compressor was open. Make certain that a vacuum of 0.1 in. of mercury absolute is reached and that with the pump stopped and the valve in the pump line closed, the vacuum stays at this value for at least ½ hour. Then break the vacuum by letting refrigerant from the system

raise the pressure in the compressor to atmospheric and then evacuate it again as described in paragraph 1 (b) above.

(3) **Major compressor repair job such as a complete overhaul but no motor burnout.**

After a major overhaul of the compressor, which involves removing the compressor from the air conditioner to work on it, the completed compressor should be placed in an oven, which is held at about 250° F., for 8 hours while a vacuum of 0.1 in. of mercury absolute is maintained on the compressor. Break the vacuum with clean, dry refrigerant at slightly above atmospheric pressure and keep compressor sealed.

Set the compressor in place and quickly make all the necessary piping connections. Evacuate the complete system at a vacuum of 0.1 in. of mercury absolute for at least four times as long as the compressor was exposed during the connecting process. Break the vacuum with “Freon,” then re-evacuate as in 1 (b). Charge the system with the prescribed amount of the correct “Freon” refrigerant and set it in operation.

### BURNED OUT MOTOR

(4) **Major compressor repair, burned-out motor.**

In such cases, the compressor will doubtless be removed from the unit and replaced. The replacement compressor will of course be clean and dehydrated, but the rest of the system will require careful attention because of the very appreciable amounts of water, acid, and black sludge produced by the burning out of the motor.

Remove and replace the liquid line strainer. Remove and clean thoroughly the expansion valve strainer. Blow out the low side of the system in the reverse direction of refrigerant flow from the compressor suction valve connection back through the cooling coil and the liquid line which should be disconnected at the condenser liquid outlet valve.

Blow out the high side of this system in the direction of refrigerant flow from the compressor discharge valve, through the condenser, letting the dirt, moisture, and other impurities come out through the liquid valve at the bottom of the condenser.

Because of its good solvent action, it is well to use a few pounds of new, dry “Freon” for the flushing operation. Now, reassemble the system, but do not connect it to the new, dehydrated compressor. Proceed now to evacuate the system less compressor. It is wise to use the overnight evacuation method as it is still possible for appreciable quantities of moisture from the burned-out motor to be trapped in the many crevices of the evaporator and the condenser.

Break the vacuum with “Freon” and quickly connect compressor. Evacuate the complete system at a vacuum of 0.1 in. of mercury absolute for at least four times as long as the compressor was open.

Break the vacuum with “Freon,” then re-evacuate as before. Charge the system with the prescribed amount of the correct “Freon” refrigerant and set it in operation.

## Control Mfr.'s New Dept. To Study Customer Needs

GLENDAL, Calif.—General Controls Co. here is establishing a new department for study and analysis of customer requirements in the design and development of new products.

The new department will supplement the work of regular engineering divisions of the company and will enable much closer study of customer problems, according to W. A. Ray, president and chief engineer.

The department will be headed by H. A. McIntosh, an engineer of long experience in heating controls and accessories as product analysis engineer. He will work directly with present and potential customers of the company in anticipating future needs in the controls field.

McIntosh is a graduate of the Taft school and of Augustana college. He is a registered professional engineer.

## Walz Joins Chicago Office Of Research Products Corp.

MADISON, Wis.—Appointment of John E. Walz as assistant to H. E. Whelpley, district sales manager of Illinois and Indiana has been announced by Research Products Corp. here, manufacturer of air filters for heating and air conditioning units.

Walz, a Navy veteran, was formerly associated with a heating firm here and will cover the Chicago area working with engineers, dealers, jobbers, and industrial users of R P air filters.

## Seattle Meeting Draws Servicemen--

(Concluded from Page 1, Column 2)

bila, helped swell attendance. Visitors also came from Alaska, Montana, Nevada, Idaho, Wyoming, California, etc.

Conference Chairman Fay Snyder stated that attendance at the three-day meeting was close to the 1,000 mark.

Coinciding with the 11th Educational Conference was the fourth annual meeting of the Western International Association of RSES. This association comprises RSES chapters in Vancouver, B. C.; Seattle, Tacoma, Yakima, Washington; and Portland, Eugene, and Klamath Falls, Oregon.

Officers elected for this group for the coming year are Wes Smith, Vancouver, B. C., president; Virgil Camet, Eugene, Oregon, vice president; Fay C. Snyder, Seattle, secretary-treasurer; W. S. Merriam, Seattle, Educational Director; Jim Phillipson, Vancouver, B. C., sergeant-at-arms.

The next annual meeting of the Western International Association will be held in Eugene, Oregon, it was decided, with Don Kuhl acting as conference chairman.

In a contest sponsored by REWA, servicemen voted for the most educational exhibit and each serviceman selected an exhibit which was most valuable for them.

First prize for the exhibit of a manufacturer which was voted most educational by the servicemen in attendance went to Detroit Controls Corp. Winners of the contest whose individual entries were chosen by the

conference judges as most constructive were first prize, W. M. Smith, Burrard Drydock, North Vancouver, B. C.; second prize, Paul E. Darby, McCord Air Base, Tacoma, Wash.; third prize, James H. Goodman, Day & Nite Refrigeration Co., Seattle.

As usual, the “Information Please” sessions held at the start of each daily meeting were popular with the servicemen in attendance. At the first daily session, John D. Bopp, Ansul Chemical Co., gave a talk on driers and Richard M. Stern discussed job design as it applies to the service engineer—both what the serviceman wants from job design and what the design engineer expects from the service engineer.

At the second conference session Edward Simons, consulting engineer, explained the operating characteristics of reflective insulation. By using a number of slide films the proper and improper methods of installation of reflective insulation were also shown.

D. D. Wile, Refrigeration Engineering, Inc., gave an informative talk on blower coil selection and a simplified method of box load calculation. Pre-calculated tables were used to make coil selection and box load calculation simple and practical.

At the final daily session, Frank Y. Carter, Detroit Controls Corp., talked on effective methods of removing moisture from refrigeration machines in the field and John H. Spence, Hussmann Refrigeration, Inc., spoke on the use of the suction pressure recording gauge in diagnosing and analyzing service problems.



“It sure gets rid of the gook!”

## Manufacturers' Representatives

An excellent opportunity is now offered to those calling on the dairies, ice cream companies or commercial refrigeration dealers, with the most advanced line of glass-front milk, ice cream and frozen food cases as well as other self-contained refrigerated specialties. The line is supported by national advertising and is manufactured by a firm of national character rated AAA1. Write fully in strictest confidence about the territory you cover, etc. Our personnel is informed of this ad.

Write Box 4294, Air Conditioning & Refrigeration News.

It in this case is “Virginia’s” new degreasing solvent sold under the trade name of Virginia No. 10. Made expressly for refrigeration, electrical and automotive use, Virginia No. 10 fills the need for an effective degreaser that can be used with comparative safety.

Whatever you expect a degreaser to do, Virginia No. 10 does it—like a charm. Removes oil, grease and grease-bound dirt in a flash. It has very good drying properties, is non-corrosive and, unlike some

solvents, will not cause the rusting of machined parts.

But Virginia No. 10 is much more than a good degreaser. It has a dielectric strength of 20,000 volts. The significance of this is it will not attack electrical insulation or leave any current-carrying residues. Its flammability hazard is very low. And you can stand a concentration of 200 parts per million for hours without harm—it’s about 8 times less toxic than carbon “tet.”

Virginia No. 10 is available in 1 gallon factory-filled cans from your favorite wholesaler. Or write VIRGINIA SMELTING CO., Dept. 63, West Norfolk, Va.

**VIRGINIA**  
Refrigerants

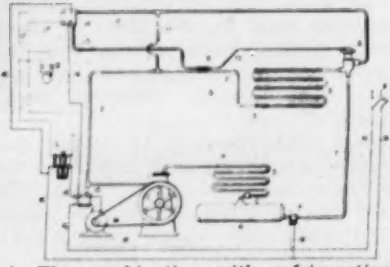
ESOTOOL • V-METH-L • KINETIC CHEMICALS' "FREONS"  
CAN-O-GAS • PERMAGUM • PRESSTITE TAPE  
SOLVEX PRODUCTS • SUNISO REFRIGERATION OILS



# PATENTS

Week of December 16

**2,621,457. SAFETY CONTROL MEANS FOR REFRIGERATING SYSTEMS.** George H. Warren, Miami Beach, Fla. Application Dec. 12, 1951, Serial No. 261,532. 4 Claims. (Cl. 62-4.)



1. The combination with refrigerating apparatus comprising an electric motor, a compressor driveable thereby and an electrical power circuit normally energizing said motor, a condenser communicating with said compressor, an evaporator, means including a conduit and a thermostatic valve disposed in said conduit for supplying said evaporator with liquid refrigerant from said condenser, means including a discharge conduit for conveying vaporous refrigerant from said evaporator to said compressor, a temperature-sensitive and pressure-developing bulb in operative association with said discharge conduit and in capillary tubing communication with said thermostatic valve for the actuation thereof to control the liquid refrigerant supply to said evaporator responsive to pressure fluctuations in said bulb, of a first pressure conduit connected with said discharge conduit and a second pressure conduit connected with said bulb, of pressure differential-operable switch means electrically connected in said power circuit and having fluid connections with said pressure conduits whereby to interrupt said power circuit

## TAKES TIME OUT



F. E. Morrison, Appliance Mgr., Rockford Standard Furniture Co., Rockford, Ill., says:

"I receive practically all of the trade publications, but the NEWS is the one that I immediately take time out to read completely, as it seems the NEWS gives us the most complete and most reliable information on what is new in our industry. Also your section on refrigeration problems and procedure is most helpful to our Service Department."

"When I first subscribed to the NEWS I was a little skeptical as to how much value it would be to an appliance department such as ours, inasmuch as we do very little commercial or air conditioning, but I find that your complete coverage of the appliance picture brings us what is new in our industry first."

"Look twice—it's worth the price!"  
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"The Newspaper of the Industry"

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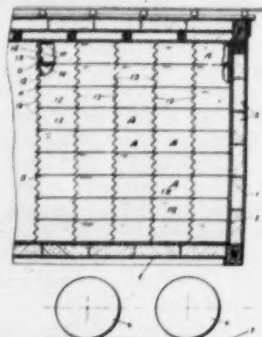
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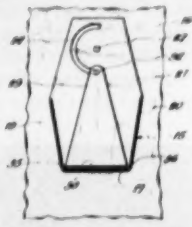
for the de-energization of said motor upon the delivery of a predetermined differential in the pressures of said pressure conduits.

**2,621,466. METHOD AND APPARATUS FOR MAINTAINING UNIFORM TEMPERATURE IN FROZEN MASSES.** Willard L. Morrison, Lake Forest, Ill. Application Oct. 30, 1945, Serial No. 623,507. 3 Claims. (Cl. 62-1.)



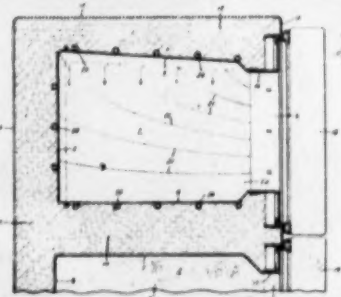
1. In combination, a receptacle having a heat insulating outer housing, a plurality of separate fluid tight metal boxes so shaped that they may be assembled into a compact mass within the housing substantially completely filling it, each box containing a mass of frozen material substantially completely filling the box at a temperature substantially below zero, each box being in contact throughout its entire surface with the boxes around it except where a box may be in contact with a wall of the housing, separate heat conducting means within the housing in contact with the walls thereof and extending throughout the mass in contact with at least one wall of the boxes adjacent to it.

**2,621,468. FREEZING CONTAINER.** Joseph E. Layton, Hinsdale, Ill., assignor to International Harvester Co., a corporation of New Jersey. Application Nov. 15, 1950, Serial No. 196,464. 12 Claims. (Cl. 62-89.)



1. In a device for forming and ejecting an ice cube, a container pivotally secured to a portion of a freezing compartment, and an ejector arm having a first leg pivotally secured to said portion and a second leg disposed adjacent a wall of said container, said second leg moving away from said wall as the container and ejector arm are rotated simultaneously so that an ice cube will be ejected from the container.

**2,621,469. REFRIGERATOR CABINET HAVING MEANS TO IMPROVE TEMPERATURE DISTRIBUTION.** Joseph A. Pietsch, Schenectady, N. Y., assignor to General Electric Co., a corporation of New York. Application Nov. 23, 1951, Serial No. 257,764. 3 Claims. (Cl. 62-89.)

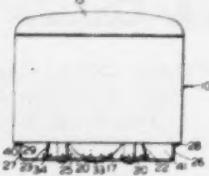


1. A refrigerator cabinet comprising a substantially horizontal bottom wall, substantially vertical side and rear walls, and a top wall all joined together to form a refrigerator compartment having an opening at the front, a door for said opening, said top wall sloping upwardly from said opening to said rear wall, and cooling means for cooling at least said top wall from the front to the rear thereof.

**2,621,490. REFRIGERANT CONDENSER.** Charles D. Harris, Evansville, Ind., assignor to International Harvester Co., a corporation of New Jersey. Application May 5, 1950, Serial No. 160,331. 1 Claim. (Cl. 62-117.4.)

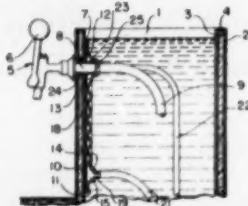
A condenser consisting of a plate having a channel therealong formed by bent-in

edge portions which are secured to a wall of a refrigerator whereby a vertical cur-



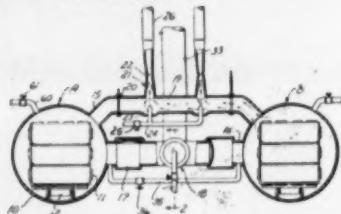
rent path for convectional air currents is formed between said plate and said wall, a tube positioned between said plate and said wall in thermal contact with said plate, said tube having straight vertical portions connected by bent portions, a longitudinal clamp positioned over each straight portion securing each straight portion to said plate, said clamp fashioned to have a flat portion with a longitudinal fin formed on each vertical edge and a groove formed in the flat portion intermediate the fins, said clamp positioned with said groove over said straight portion and said flat portion secured to said plate with said fins protruding at an angle to said plate longitudinally into said path.

**2,621,491. REFRIGERATING APPARATUS.** Louis Coleman, Westwood, N. J., assignor, by mesne assignments, to Samuel Lee, Brooklyn, N. Y. Application March 1, 1949, Serial No. 73,913. 2 Claims. (Cl. 62-141.)



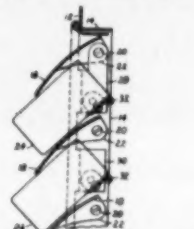
1. Refrigerating apparatus comprising a casing, delivery faucets mounted adjacent the outer face of a wall thereof, and projecting at their inner ends into said casing, a pair of plates having leakproof connection along their edges, one of said plates having a channel extending parallel to said faucets, sleeves in said plates extending through said channel, said sleeves enveloping the ends of said faucets, the first-named plate having a second channel parallel to the first, said first-named plate having longitudinal and transverse hollow ribs forming ducts connecting said channels and one another, the second channel having an inlet and the first channel an outlet for a refrigerant and bushings having leakproof connection with said wall of the casing, enveloping said sleeves.

**2,621,492. APPARATUS AND METHOD FOR PRE-COOLING MATERIAL BY VACUUM-INDUCED EVAPORATION.** Melville W. Beardsley, Venice, and Rex L. Bruning, San Francisco, Calif. Application July 18, 1949, Serial No. 105,302. 16 Claims. (Cl. 62-168.)



1. In a vacuum refrigeration system of the class described: a plurality of enclosed chambers each having an opening whereby produce may be loaded into said chamber and a hermetically sealable closure for said opening; a steam ejector air pump having a plurality of intake conduits, one connected to each of said chambers and an exhaust to atmosphere; a second steam ejector pump having a Venturi throat designed and adapted to pump water vapor and exhaust the same into a condenser, said ejector pump having a plurality of intake conduits, one connected to each of said chambers; a condenser having a condensation chamber connected to receive the discharge from said ejector pump, cooling water intake means for said condensation chamber, cooling water and condensate discharge means, and means to reduce the total pressure in said condensation chamber; and valves in said intake conduits to selectively close the same whereby to sequentially connect said air pump and said ejector pump to said chambers to first evacuate a substantial proportion of air from a given chamber and thereafter reduce the pressure of vapor in said given chamber evaporated from produce therein.

**2,621,578. ADJUSTABLE AIR DISTRIBUTOR.** Otto A. Labus, La Crosse, Wis., assignor to The Trane Co., La Crosse, Wis. Application Aug. 13, 1949, Serial No. 110,068. 2 Claims. (Cl. 98-40.)

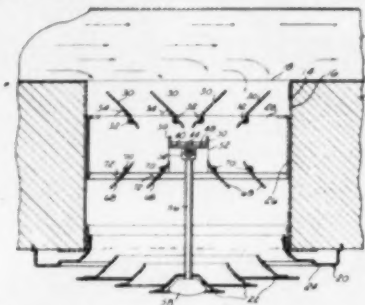


1. A distributor for directing the flow of an air stream flowing from an outlet comprising a frame, a plurality of first air turning vanes pivotally supported by said frame about substantially parallel axes lying substantially in a single plane and a plurality of second air turning vanes, means pivotally supporting said second air turning vanes with respect to said frame about axes substantially parallel to the axes about which said first vanes pivot, and means supporting said second air turning vanes for pivotal adjustment about axes substantially perpendicular to their first pivotal axes.

**2,621,579. DAMPER.** Ernest H. Person and Richard D. Tutt, New Britain, Conn., assignors to Tuttle & Bailey, Inc., New Britain, Conn., a corporation of Connecticut. Application Aug. 25, 1949, Serial No. 112,198. 6 Claims. (Cl. 98-40.)

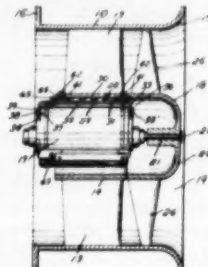
1. A damper for use in an air duct comprising a plurality of damper vanes pivotally mounted in the duct for move-

ment between a closed position transversely of the duct and a fully open position longitudinally of the duct, a plurality of deflector vanes correspondingly mounted in the duct in longitudi-



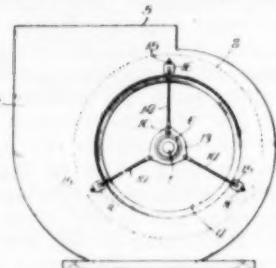
nally spaced relation to the damper vanes, the damper vanes and deflector vanes on one side of a central longitudinal plane through the duct being arranged for swinging movement oppositely to each other and oppositely to their counterparts on the other side of the plane, linkage means interconnecting the damper and deflector vanes on each side of said plane for simultaneous swinging movement to closed and open positions, actuating means movably supported in said duct and connected to said linkage means, said actuating means being arranged to shift said linkage means and thereby pivotally adjust said damper and deflector vanes, and means releasably retaining said actuating means in any adjusted position.

**2,621,548. AXIAL FLOW FAN WITH YIELDINGLY CENTERED FAN ELEMENT.** Harold F. Minnie, Claremont, N. H., assignor to Joy Mfg. Co., Pittsburgh, Pa., a corporation of Pennsylvania. Application May 25, 1949, Serial No. 95,352. 13 Claims. (Cl. 230-120.)



1. In combination, a fan housing, a shaft supporting member, a shaft rotatably supported by said shaft supporting member, and mounting means for supporting said shaft supporting member within said housing with said shaft coaxial with said housing, said mounting means comprising a plurality of mounting devices positioned between said shaft supporting member and said housing, said devices each comprising first and second mounting members with resilient rubberlike material bonded therebetween, said first mounting members being adapted to be adjustably secured to said shaft supporting member, cooperating means to adjustably attach said first mounting members and said shaft supporting member, said second mounting members being adapted to be fixedly secured to said housing, means to fixedly secure said second mounting members to said housing, said shaft supporting member being positioned in said housing with said shaft coaxial with the latter by adjusting said first mounting members relative to said shaft supporting member, said resilient rubberlike material yielding and providing continuous connection between the first and second mounting members of each device and expanding or contracting radially under vibration impulses to dampen such vibration.

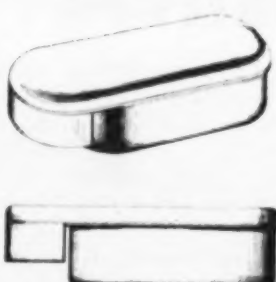
**2,621,850. MEANS FOR MOUNTING FAN SHAFTS OF BLOWERS.** David Firth, South Bend, Ind., assignor to Dodge Mfg. Corp., Mishawaka, Ind., a corporation of Indiana. Application Aug. 1, 1947, Serial No. 765,398. 7 Claims. (Cl. 230-132.)



1. In a blower comprising a rotary fan and a fan housing having a vertical end wall provided with an air intake opening of large diameter through which the fan shaft extends, means for supporting said shaft adjacent to said opening comprising a bearing housing having a bearing for said shaft therein and radiating tie-rods by which said bearing housing is connected to and supported from the fan housing, said tie-rods being in a common vertical plane closely adjacent to and parallel with said end wall, said rods having screw-threaded outer end portions, nuts engaging said screw-threaded portions, and individual nut-holding brackets affixed to said end wall and against which said nuts are tightened for tensioning said rods.

## DESIGNS

**168,433. ELECTRIC ICE CREAM FREEZER.** Lester M. Yohe, Havertown, Pa. Application Nov. 21, 1951, Serial No. 17,492. Term of patent 14 years. (Cl. D67-2.)



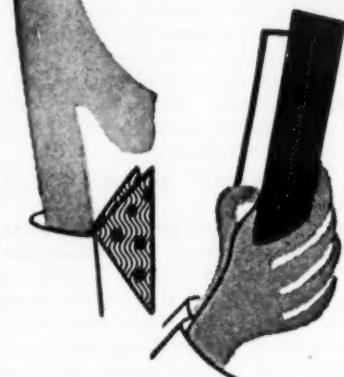
The ornamental design for an electric ice cream freezer, as shown and described.

## Quinn, Burks, Oslin Nation Named BAC Representatives

BALTIMORE — Baltimore Aircoil Co., Inc. has announced recently the appointment of three representatives.

They are Robert P. Quinn of Technical Products Service & Sales, Louisville, Ky., covering western Kentucky and southern Indiana; Ed Burks of P. L. Guest Sales Co., Greensboro, N. C., covering Virginia, with headquarters in Richmond; and Oslin Nation Co. of Dallas, covering the portion of Texas east of the Pecos River, according to the announcement by the company.

## "Stories of the Week" In Handy Form



In response to hundreds of requests from AIR CONDITIONING & REFRIGERATION NEWS subscribers, the conductor of its "Inside Dope" column has collected and grouped his best "Stories of the Week." They are now available in convenient book-form for your reading and working pleasure. The book is entitled: "You'll Love This One."

Everyone will enjoy reading this book, we hope, but for the salesman—and for anyone who may be called upon to "say a few words" at a meeting—it should have special appeal.

Here's why: this book of good stories you can tell is printed on thin paper, bound in flexible leatherette, and designed to fit neatly into your inside coat pocket.

While waiting in an ante-room to see Mr. Bigdome, the sales representative can thumb through it and pick out four or five pertinent jokes which are guaranteed to put his prospect in a good mood.

The man about to make a speech—or one who figures he may be asked to rise and shine extemporaneously—can consult it surreptitiously while the toastmaster is doing his stuff. Although it's jam-packed with grand tales, it isn't bulky. Rather, it's unobtrusive. Looks more like a leather wallet than a book.

You can be the life of the party if you've memorized some of the anecdotes in this book. Everybody loves a good story well told—and all the jokes in this book have been tested on tough audiences, both large and intimate, by the author.

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## Vacuums, Sewing Machines Chief Offenders

'Baiting, Switching' Practices Condemned  
By Association of Better Business Bureaus

NEW YORK CITY—"Baiting and switching" practices employed against the public, particularly in the sewing machine and vacuum cleaner fields, have been condemned by the Association of Better Business Bureaus bait advertising committee.

It reported that the problem is larger and tougher than the bureaus had believed despite a two-year nationwide campaign to curb it.

George C. Young, committee chairman, reported to the 39th annual conference of Better Business Bureaus that the committee reached these conclusions based on some 200 shoppings of new and used vacuum cleaner and sewing machine advertising, selling at \$50 and under in 33 cities between Jan. 15 and Feb. 15.

Reports by 25 additional bureaus on almost 100 customer complaints made to the bureaus during this period were included. Ten other bureaus reported on adverse public reactions to bait advertising and consumer experiences on responding to it.

SHOPPING SURVEY PROVIDES  
CONCRETE PROOF

The report stated the shopping survey provides the "widest possible concrete proof that bait advertising and selling practices exist in full bloom" in these fields, and that "no stronger indictment can be rendered by broad generalizations than the setting forth of actual happenings and statements recorded in the bureau shoppings.

"One can see both the smooth techniques and the strong-arm methods. The false advertising and the false pretense are sharply differentiated from the procedure of letting the purchaser, himself, kill the desire to buy the bait advertised item.

"Regardless of how they are said or written, or what happened, the bait practices add up to the same thing. They are aimed at the same goal of not selling, or wanting to sell the cheap item that was advertised. They also destroy that desire created by advertising and divert it to much more expensive merchandise that normally is never advertised."

## 46 SELECTED EXAMPLES CITED

The committee listed 46 selected examples, revealed through bureau shoppings, of killing, dampening, or diverting American purchasing power by means of evasions, lies, perversions, delays, or denials.

It also reported that quite a few customers complaints arose from the fact that, after baiting a customer and delivering a rebuilt or new or even an expensive switch model, the firms were reluctant or refused to stand faithfully behind their written guarantees, refusing to permit purchasers to know fully how to obtain value and satisfaction from their purchase. The "tricky terms" of most guarantees on bait merchandise, if purchased, "came into full focus,

leaving dissatisfaction in their trail."

The committee said its study revealed "the undeniable and slamming indictment of bait practices" and listed a number of questions and conclusions. Among them were:

1. Bait tactics in new and used vacuum cleaners and sewing machines are not confined to specialty firms or even appliance companies. It reported:

LARGE NATIONAL CHAIN  
INVOLVED

"A very large national chain has initiated a multi-million dollar operation supposedly of the more subtle variety, to take a piece of this business from the maverick outfits.

"Several bureaus have indisputable proof that the sales and advertising practices of this national chain, while pressuring for business volume, ran close competition to the most obvious and notorious bait operators, even to the extent of having an extended and expensive training school from which graduates go out to ply their wares on the unsuspecting good customers of this national chain."

2. Television has been seized upon in many sections as the best method of carrying out bait advertising because of the extra advantages of deceiving the customer, usually as to condition and appearance.

'MANUFACTURER'S NAME  
WITHHELD' IS NEW APPROACH

3. During the past year there has been a sharp change in vehicles for baiting, from rebuilt name-brand merchandise offerings to "manufacturer's name withheld by request" new merchandise.

"It is apparently hoped that the implication of branded merchandise will serve as a door opener, attracting bargain hunters—the people who still believe that "something for nothing" is possible," the report said.

4. Indications are that the "fast buck boys" are in the field, eager to load and sell in any way, illegitimate or otherwise. When there are too many strikes on the firm under one name, it folds and crops up under another name, or may even sell out to a competitive firm.

5. There is a spirit of "live and let live" among bait competitors in almost any town, "denying the survival of the fittest rule of keen competition normally existent in the American business world."

6. When newspapers or bureaus show signs of "putting on the heat," everyone gets holy to prevent further bad impressions."

7. Bureau experience is that no matter what opportunities for self-regulation and correction are offered baiting firms, these yardsticks are soon violated.

8. Baiting apparently can be done most successfully by specialty firms having nothing else to offer. The preponderant number of department stores will not incur the ill-will gen-



## PROCUREMENT INFORMATION

The following is a list of proposed procurements issued by the various indicated U. S. Government procurement offices. This list is compiled and made available daily on a free pick-up basis. Prospective bidders may obtain complete bid sets by a request to the purchasing officer under which the purchase is listed in this Synopsis. Be sure to identify completely the bid invitation you wish by including in your request the item description, the invitation number or reference number and the opening date. This will save time in filling your request. For reasons of economy, specifications are normally not included with the bid invitations unless the specification is a new one. First time bidders on a particular item should request a copy of applicable specifications and drawings at the time the request for a bid is made.

It is not necessary to refer solely to the issuing office for additional data on a bid invitation issued by any of the following U. S. Army Ordnance Offices: Ordnance Tank Automotive Center; Detroit Arsenal; Frankford Arsenal; Picatinny Arsenal; Raritan Arsenal; Ordnance Ammunition Center, Joliet, Ill.; Rock Island Arsenal; Springfield Armory; Watervliet Arsenal; and Watervliet Arsenal. Complete information on any purchase listed by any of those offices alone can be obtained from the Ordnance District Office nearest you. Its address is on file in your nearest Department of Commerce Field Office. Do not ask an Ordnance District Office for information on a purchase unless it is listed by one of the above-named offices. Ordnance District Offices do not have information on any other purchases.

Invitations for bids numbers will be followed by the letter "B." Requests for proposals or quotations will be indicated in this column by the letter "Q," or, if numbered, the number will be followed by the letter "Q."

## DEPARTMENT OF DEFENSE

Description	Quantity	Invitation No.	Opening Date
General Stores, Supply Office, 700 Robbins Avenue, Philadelphia 11, Pennsylvania			
Coolers complete self contained electrically operated unit bubbler drinking water shore type size 5 and size 10 interim Fed Spec 00. C. 00566B GSA FSS.	1683 ea.	4-1/365-B	15 May 53
Philadelphia Quartermaster Depot, 2800 South 20th Street, Philadelphia 45, Pennsylvania			
Furnish all labor material and equipment necessary for the installation of a mechanical exhaust ventilating system in building No. 9, alterations to existing roof ventilation, and the relocation of lighting fixtures and steam and water lines and sections of the sprinkler system in accordance with specifications and drawings.	Job	205-B	6 May 53
Temperature, humidity chamber unit with controlling and recording instrumentations size 24" x 24" x 36"	1 ea.	201-B	7 May 53
Temperature, humidity chamber unit with controlling and recording instrumentations size 36" x 36" x 36"	1 ea.	201-B	7 May 53
Temperature, humidity chamber unit with recording controller size 36" x 36" x 36" temperature range minus 60° F to plus 200° F	1 ea.	201-B	7 May 53
Raritan Arsenal, Mechanics, New Jersey			
Tubing copper seamless soft and size 3/8" 0.500" Od 0.049" Wall thkns 60 ft.	20000 ft.	B53-297	5 May 53

erated through baiting, because of the real or potential bad effect on the sale of other merchandise normally carried in such stores.

10. The rebuilt American name-brand sewing machine has become a "football" for the copy Japanese import. In the vacuum cleaner field new English, Swedish, and Belgium miniature tank models are the "footballs" for the American made upright models.

MANUFACTURERS RELUCTANT  
TO PROTECT NAMES

11. There is apparent disinterest and reluctance on the part of name-brand national manufacturers of sewing machines and vacuum cleaners to protect their brand names.

To combat this constantly growing nationwide problem, the committee made a number of recommendations to the Better Business Bureau conference.

1. It asks that the findings of the committee be turned over to trade organizations, consumer and media groups, and to concerned government agencies.

2. It is further proposed that the bureaus appeal to concerned business, trade associations, and the Federal Trade Commission to enter into the establishment and promulgation of a trade practice conference governing this industry.

3. It is proposed that the bureaus develop leaflets, advertisements, and other publicity materials to protect the public.

Trane Co. Office In Duluth  
Moves To Lyceum Building

DULUTH, Minn.—Robert T. Dean, manager of the Duluth sales office of The Trane Co. has announced the Duluth office is now located at 414 Lyceum Building, Duluth 2. The new telephone number is 7-4450.

PRODUCT SERVICE  
MANAGER

Large, nationally-known eastern manufacturer needs product service manager for residential heating and residential and commercial air conditioning products. Technical education with wide experience in application, installation and service of these products. Must be able to supervise field engineers and work well with wholesalers, retailers and their customers. Age 30-45. Paid vacation, pension program and group insurance. Submit complete resume with reply to Box 4295, Air Conditioning & Refrigeration News.

## Government Contracts

coil type K, of Fed Spec WW. T. 799A.			
Size 3/16" 0.188" Od 0.035"	425000 ft.	B53-297	5 May 53
Wall thkns 50-60 ft. coil, type N of Fed Spec WW. T. 799A.			
Size 5/16" 0.438" Od 0.035"	20000 ft.	B53-297	5 May 53
Wall thkns 50-60 ft. coil, type N of Fed Spec WW. T. 799A.			
Size 3/8" 0.500" Od 0.035"	500000 ft.	B53-297	5 May 53
Wall thkns 50-60 ft. coil, type N of Fed Spec WW. T. 799A.			
Size 1/2" 0.750" Od 0.049"	100000 ft.	B53-297	5 May 53
Wall thkns 50-60 ft. coil, type N of Fed Spec WW. T. 799A.			
Philadelphia District, Corps of Engineers, 1430 Walnut Street, Philadelphia, Pennsylvania			
Open end contract for Dichlorodifluoromethane (Freon 12) for filling army owned and/or commercial cylinders and minor maintenance repair to Govt. owned cylinders.	20 ea. (ENG-34-109-53-742-B)		18 May 53
Chicago Quartermaster Depot, Quartermaster Purchasing Div., Chicago, Illinois			
Bid Forms Now Available. Do Not Request After Opening Date.			
Refrigerator mechanical 20 cu. ft. Spec Mil. R. 10931B QMC.	194 ea.	53-996-B	5 May 53
Dispenser, drinking water spec 00-C-00566 B/GSA-FSS.	511 ea.	53-1012 B	8 May 53
Cabinet, ice cream, spec MIL-I-0020565A/QMC.	100 ea.	53-10006 B	11 May 53
Refrigerators, portable, walk-in, spec MIL-R-12571/QMC and MIL-R-12574.	53-1004 B		11 May 53
Electric	225 ea.	53-1004 B	11 May 53
Gasoline	75 ea.	53-1004 B	11 May 53
Refrigerators	272 ea.	53-1006 B	11 May 53
Condensing unit	272 ea.	53-1006 B	11 May 53
Unit cooler spec MIL-R-0010137B/QMC.	272 ea.	53-1006 B	11 May 53

## GENERAL SERVICES ADMINISTRATION

Description	Quantity	Reference No.	App. Bid Date
Business Service Center, General Services Administration, Region 3, 50 W. Peach St., S.W., Atlanta 3, Georgia			
Air conditioning equipment, Job CR 4-446			14 May 53
etc. Don-Ce-Bar Building Pass-A-Grille, Florida.			
General Services Administration, 19th & F Sts., N.W., Washington 25, D. C.			
Construction of the Federal Supply and Records Building at Kansas City, Missouri. One-story building, ground area 528,000 sq. ft., cubic content of building approximately 10,000,000 cu. ft.—air conditioning.	Job	23-107 (On or about)	25 May 53

## CONTRACTS AWARDED THROUGH APRIL 24

Quartermaster Chicago Depot, U. S. Army, 1819 West Pershing Road, Chicago 9, Illinois

Dispenser, drinking water (53-593-B)—430 ea., \$42,060.—Westinghouse Electric Corp., 1625 K Street, N. W., Washington 6, D. C.

Dispenser, drinking water (53-593-B)—120 ea., \$36,603.—Filtrine Mfg. Co., 53 Lexington Ave., Brooklyn 38, N. Y.

Dispenser, drinking water (53-593-B)—187 ea., \$54,847.—Filtrine Mfg. Co., 53 Lexington Ave., Brooklyn 38, N. Y.

Dispenser, drinking water (53-593-B)—102 ea., \$32,130.—Bar Ray Products, Inc., 209 25th St., Brooklyn 32, N. Y.

Co., acquired in December, 1951.

Fred L. Riggan, Sr., president, reported to stockholders that the company set up a plant in Toluca, Mexico, in fiscal 1952. He said a small Mexican corporation was formed, with Mueller owning 51% of the outstanding capital stock. The plant was scheduled to begin production of steamline fittings soon.

Mueller Brass and its subsidiary spent \$1,437,388 during fiscal 1952 for addition and replacements of plant and equipment, according to Riggan. An additional \$570,000 will be needed to complete the projects in progress, he said.

Mueller Brass Earnings  
For Year Rise Sharply

PORT HURON, Mich.—Net sales of Mueller Brass Co. in fiscal 1952 totaled \$51,383,284, up 20.8% from the \$42,542,798 in the preceding year, and net earnings were \$3,024,331, or \$5.70 a share, compared with \$2,276,763, or \$4.29 a share, in the preceding year, the company reported.

The firm said increased defense work helped boost sales and earnings. Sales in fiscal 1952 did not include operations of the firm's wholly-owned subsidiary, Valley Metal Products

## CLASSIFIED ADVERTISING

RATES for "Positions Wanted" \$5.00 per insertion. Limit 50 words. 10¢ per word over 50.

RATES for all other classifications \$7.50 per insertion. Limit 50 words. 15¢ per word over 50.

ADVERTISEMENTS set in usual classified style. Box addresses count as five words, other addresses by actual word count. Please send payment with order.

## POSITIONS WANTED

ENGINEER, REFRIGERATION and air conditioning, desires responsible position with an aggressive company. Can get along well with people. Good idea man. Have air conditioning and refrigeration background with a major contractor. Some sales experience. Also good product development background with manufacturer. BOX 4293, Air Conditioning & Refrigeration News.

## POSITIONS AVAILABLE

FIELD SERVICE engineer for Indiana, Ohio, Michigan. Age 32 to 42, living in northern Indiana or southern Michigan, with 10 or more years' experience, preferably food store refrigeration. No installation or service responsibility. We are looking for a capable man who wants to lay down his tool box for a better opportunity. One of the largest manufacturers of food store equipment has an excellent opportunity for a man free to travel in a definite territory without family interference. Salary, expenses, insurance, etc. Also a man for the eastern and New England states living in a mid-eastern state. Apply by letter, giving full particulars, with recent photograph. BOX 4283, Air Conditioning & Refrigeration News.

WANTED REFRIGERATION and air conditioning service and installation man by dealer in southwestern Ohio near Cincinnati. In reply give age, full experience, type installations, etc. This is year-round work at a good salary. Commission on all sales made. Good living conditions for a family man. BOX 4292, Air Conditioning & Refrigeration News.

CHIEF ENGINEER. Nationally known manufacturer seeks top level air conditioning engineer capable of assuming full charge of department in the manufacture of room air conditioning units. This position offers high salary and exceptional

opportunity to the right man. Replies will be strictly confidential. State full details indicating experience, salary requirements, and availability. BOX 4296, Air Conditioning & Refrigeration News.

DESIGN ENGINEERS—Heating, Design Engineers—Refrigeration, Design Engineers—Air Conditioning, Research Engineers and Technicians—Large midwestern manufacturer 50 years young and still expanding offering unusual opportunities for qualified engineers. Replies confidential. Write BOX 4297, Air Conditioning & Refrigeration News.

## EQUIPMENT FOR SALE

SOFT ICE CREAM freezers—continuous process for popular money-making "softies." One new at half wholesale, two used at rock-bottom prices. These are fine machines, famous make. Have to devote all my time to different business so must close out. Write P. J. BERNHEIM, 2324 Humboldt Avenue, El Cerrito 3, California.

ONE YORK 60 HP compressor motor unit, complete, late model, also Chrysler 50 HP compressor motor unit, complete, late model. Both reasonably priced. MARC AIR CONDITIONING & REFRIGERATION CORP., 360 Broadway, Brooklyn, N. Y., Stag 2-2244.

NEW UPRIGHT freezer—21 cubic feet; over 700 lb. capacity; Modern design; gleaming white exterior; extra-quick freezing with freezer plate shelves. Complete with 1/4 h.p. Chieftain sealed unit self-contained: Ranco Temperature Control; F-22 Gas. Dealer Price \$349.00. Special discount for quantity. GENERAL REFRIGERATORS CORP., 3011 First Ave., N.Y.C. ENright 9-0290.

## EQUIPMENT WANTED

WE ARE in the market for 1500 old 145 lb. Freon cylinders with valve & cap intact. Convert useless inventory to cash. Write EVERGREEN INDUSTRIES, 630 Colonial Ave., Pelham Manor, N. Y.

CHRYSLER AIRTEMP 3-HC, 5-HC & 7 1/2-HC sealed compressors wanted for bodies and parts only. Best prices, any condition. Advise price wanted. A. S. JOHNSON COMPANY, 1240 9th Street, N. W., Washington 1, D. C.

Biggest Bargain Ever Offered  
TO OUR BIG INDUSTRY

Every phase of air conditioning and refrigeration selling—store layout, and display, financing, inexpensive advertising, dealing with manufacturers and distributors, selecting and getting the most out of salesmen, outwitting competition, making a profit on trade-ins and service, etc., etc.—covered completely in a 638-page encyclopedia:

## "BOTH FEET ON THE GROUND"

by GEORGE F. TAUBENECK

This book wasn't dreamed up—it was lived. Consists almost entirely of "case histories" drawn from interviews with dealers all over the country. All your questions answered by successful appliance merchandisers who have worked them out in practice. Profit from the other fellow's experience!

Price: \$5.95—ORDER FROM

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450 WEST FORT ST., DETROIT 26, MICH.

Please send a copy of Both Feet on the Ground.

☐ \$3.95 enclosed ☐ Send bill

Name .....

Address .....

5-4-53



## Will Rising Steel Prices Mean Higher Appliances?

DETROIT, April 30—With the announcement by U. S. Steel Corp. that it was boosting prices effective today, the steel industry has moved to an industry-wide price increase move that is upping the price of various types of steel from \$1 to \$5 a ton.

The price adjustments apparently will vary widely by types of steel, and it is possible that the types most widely used by the refrigeration and air conditioning and appliance industries may not be increased as much as some others.

Whether or not increases in steel costs will result in higher prices of consumer durable goods depends on a number of other factors—including the competitive situation. An executive of an appliance manufacturing firm was quoted by *Time* magazine as saying:

"If steel prices advance and we don't increase our prices, we'll be faced with the job of trying to increase our volume in a difficult market. If we do raise prices, our volume will drop."

## Kerotest Sale--

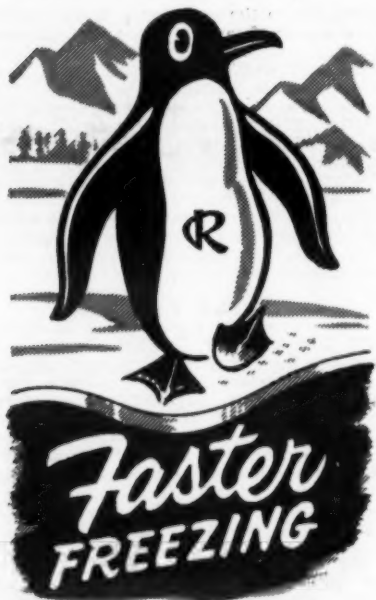
(Concluded from Page 1, Column 3)

said that although there had been a capital impairment and inadequate financing, the Kerotest Co. was not in fact insolvent in the bankruptcy sense. However, the firm had filed a petition in Federal court asking to reorganize. The trustees and other interested parties approached the Miller Co. because it had gone through similar procedure in 1936 and its management had gained a strong financial position and eminence in the printing machinery field. Miller sales experience has been world wide, and with this they bring a unique relationship record and skilled precision machining and assembling knowledge to the Kerotest Co., the statement declared.

The Kerotest Mfg. Co. was incorporated in 1909 as the Pittsburgh Brazing and Machine Co. and in 1914 began the manufacture of high-pressure valves. In 1927 the corporate title was changed to Kerotest Mfg. Co. It has been making refrigeration components for over 20 years.

### CORRECTION

In the article "Air Conditioning Automobiles" by M. W. Baker and D. C. McCoy of Frigidaire, published on page 14 of the March 30 issue, it was incorrectly published that "Freon-21" is used as the refrigerant in Frigidaire automobile air conditioning systems. "Freon-12" is the refrigerant used in these systems.



**REVCO**  
Chill Chest

Join fast growing family of Revco Dealers now cashing in on big profits with this new outstanding line.



Write For Distributor's Name

REVCO, INC. • DEERFIELD, MICH.

## Restaurant Show--

(Concluded from Page 1, Column 4)

east end of the south wing of the pier. Afternoon sessions, to be held in smaller meeting rooms in both the north and south wings, will be devoted to special interest group discussions.

The special interest sessions Tuesday afternoon, May 12, will be for inflight food service operators, college and university food service managers, department store food service managers, and small operators.

Take-home food service, freezing of cooked foods, and pie baking are among subjects to be covered during the Wednesday morning session. The presentation on pie baking will include a demonstration on freezing and baking raw pies.

On Wednesday afternoon, Armin Kusswurm, general counsel of the NRA, will describe a food protection safety program. Other program features include sessions for cafeteria operators, drive-in operators, and industrial feeding contractors on Thursday afternoon, and a shop talk session Friday morning on the best ideas of special interest meetings.

Following are some of the equipment manufacturers whose exhibits will be of interest to commercial refrigerator and restaurant equipment dealers:

### Exhibitors

Exhibitor	Booth No.
Ajax Corp. of America	880
American Automatic Ice Machine Co.	863-64
American Gas Machine Co.	858-59
Anheuser-Busch, Inc.	698-99
Automatique, Inc.	693
Bastian-Blessing Co.	535-38
Bianco Mfg. Co.	254-55
Carbonic Dispenser, Inc.	404
Carrier Corp.	533-34
Champion Dish Wash. Machine Co.	837-39
Cherry-Burrell Corp.	565-68
Detroit Display & Cabinet Co.	800-02
Detroit-Michigan Stove Co.	369-70
Dispensers, Inc.	825
Dormeyer Corp.	775-76
Dulane, Inc.	108-09
Ebco Mfg. Co.	865-66
Fixtures Mfg. Corp.	579-80
Fogel Refrigerator Co.	188
Food Equipment Corp.	769-70
Food Warming Equipment Co.	1210-11
Foremost Fountains, Inc.	189-90
Foster Refrigerator Corp.	1200-01
Frigidaire	406-09
Given Mfg. Co.	542-43
Herrick Refrigerator Co.	847-48
Hobart Mfg. Co.	141-46, 246
Hotpoint Co.	442-44, 344
Ice Appliances, Inc.	759
Jet Spray Cooler Co.	361
Johnson Plastic Tops, Inc.	204-05
Jordan Refrigerator Co., Inc.	554-55
Stanley Knight Corp.	751-53
Koch Refrigerators, Inc.	1001-02
La Crosse Cooler Co.	884
Leitner Equipment Co.	257-60
Lern, Inc.	855
Liquid Carbonic Corp.	830-34
Loudon Sales, Inc.	591-92
Magic Chef, Inc.	169-70
MagiKitch'n Equipment Corp.	287
McCall Refrigerator Corp.	637-38
Monitor Process Co.	218-19
Norris Dispensers, Inc.	180-81
Puffer-Hubbard Mfg. Co.	840-41
Refrigerated Equipment Sales Corp.	222
Service Appliance Co.	558
Southern Equipment Co.	664-66
Specialties Appliance Co.	915
Stainless Food Equipment Co.	208-11
Star Mfg. Co.	737-38
Star Metal Mfg. Co.	573-76
Super-Chef Mfg. Co.	485-86
Sweden Freezer Mfg. Co.	1006-09, 1106-09
Toastwell Co.	226
Victory Metal Mfg. Co.	457-60
Henry Vogt Machine Co.	869-70
Wilson Refrigeration, Inc.	153-54
York Corp.	910-12

### Zbrzezny Files Business Name

BUFFALO, N. Y. — A business name has been filed in the Erie County clerk's office for the Broadway Heating & Appliance Co., 687 Broadway, Buffalo, by Chester Zbrzezny.

## Manufacturer's Agents Wanted!

Large nationally-known refrigeration firm has several openings for qualified representatives calling on buyers of frozen food display cabinets. Attractively priced, but quality line with unlimited potential. Can be handled separately or in conjunction with other lines depending on territory. Write Box 4298, Air Conditioning & Refrigeration News, giving full particulars.

## I-H Gives Price Protection On Refrigeration Products

CHICAGO — International Harvester dealers and distributors will be protected against price decreases in its refrigeration products from now until Sept. 30, the International Harvester Co. announced recently.

Products covered include current models of refrigerators, home freezers, room air conditioners, and dehumidifiers. The protection is retroactive to April 9, the company said.

## Lewyt--

(Concluded from Page 1, Column 5)

producing a large variety of products for many companies. "Manufacturing air conditioners on a private label basis fits into the company's operation very nicely," Lewyt said.

He described the business as a seasonal one, in which production lines can be operated for a part of the year.

Lewyt said that his company has no plans to manufacture and sell air conditioners under its own name in the foreseeable future. "To do so," he said, "would present the company with too many distribution problems."

Lewyt declared that his firm's engineers and designers are now working on a complete line of cooler units which can be marketed by any other company. Lewyt is prepared to manufacture a line either to a customer's designs and specifications or Lewyt's.

The company already has production and engineering experience in the field. A few years ago Lewyt made a "pilot run" of several thousand room units for another firm.

## Method of Storing Whole Blood In Home Freezer Developed In London

PHILADELPHIA—A University of Pennsylvania scientist reported recently that a new process has been developed which may make it possible to sharp-freeze whole human blood and preserve it in a home freezer for as long as a year.

The process, worked out at the National Institute for Medical Research in London, England, involves the use of glycerine to prevent destruction of the red cells in the blood, according to Dr. Henry A. Sloviter, assistant professor of surgical research at the university.

Dr. Sloviter, who spent two years in London studying the process, pointed out that the present useful period of stored whole blood is about three weeks under normal conditions.

Blood plasma lasts indefinitely, he explained, but after three weeks the red cells deteriorate so much that they become useless for transfusion purposes. Glycerine diluted with whole blood prevents the red cells from breaking up when they are frozen, he said.

Such a mixture could be stored in a home freezer for around a year without harm to more than 10% of the red cells, Dr. Sloviter indicated.

However, Dr. Sloviter said, the process will not be of practical value in the blood transfusion field until a simple method is found for removing the glycerine from the thawed blood. Currently, separation is achieved by a washing process which is too cumbersome for general use.

## FTC Orders Dealer--

(Concluded from Page 1, Column 5)

and the savings it would make possible.

The case was settled when the respondents consented to issuance of the cease and desist order. In so agreeing, they neither admitted nor denied the FTC's charges.

In its order, the commission directed the respondents to stop representing:

1. That through use of such terms as "Phillip's wholesale food plan" they operate a plan for buying food.

2. That the plan has any purpose other than promoting the sale of freezers.

3. That plan participants can eliminate the retailer or buy at wholesale prices from a wholesaler.

4. That any over-all savings can be effected through the plan without disclosing how much actually has to be spent on foods purchased through the plan to effect the saving.

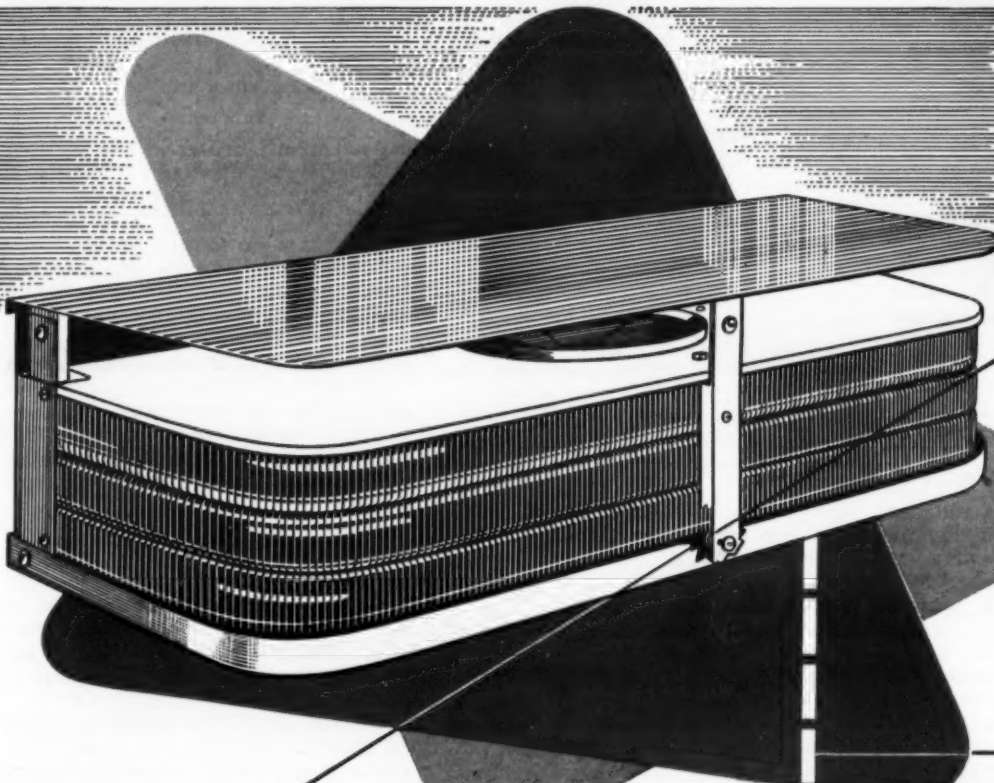
5. That an over-all saving can be effected through the general use of frozen foods instead of similar unfrozen foods.

6. That net savings can be effected by use of the freezers without taking into account the costs of operation, maintenance, depreciation, and credit costs, if the freezer is bought on credit.

7. That the cost of an instalment payment on the freezer or of a supply of food is a measure of the cost of food a customer consumes during the instalment period.

8. That freezers are free or gifts.

The respondents were also ordered not to misrepresent the price differences between food bought under the plan and at retail.



*This is a "D" nut  
a fine point of quality*

A small part . . . but an important one. Another assurance that Bush Unit Coolers are the finest available.

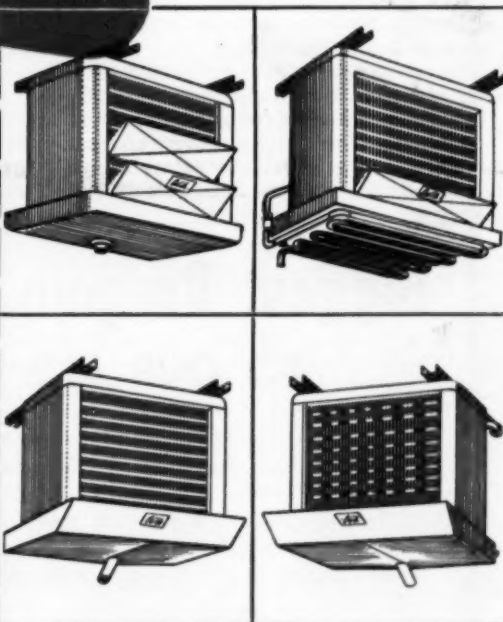
On ordinary unit coolers, sheet metal screws are used to join pan to case. Bush units are constructed with "D" nuts threaded to take small bolts. These "D" nuts are hydraulically riveted to the sheet metal. Result: a connection that doesn't loosen.

Remove the pan and replace it as often as you like. The connection will remain snug . . . free from annoying, noisy vibration.

The "D" nut . . . another fine point typical of Bush quality construction.

### FEATURES OF BUSH UNITS:

- Modern Styling and Attractive Finish
- Rigid Case Construction
- Full Drain Pan on All Units
- Accurate Ratings . . . Insuring Economy of Operation, Proper Humidity Control
- Full, Deep Plenum Chambers
- Underwriters Laboratory Approval of All Units
- CJ and WJ Lines Feature Air DRAWN THROUGH the Coil Rather than Blown Out Across the Coil. This Eliminates Blowing Condensation from the Outer Edge of the Coil onto the Product or Box
- Heat Interchangers Furnished on Most Models



**BUSH MANUFACTURING COMPANY**

WEST HARTFORD 10, CONNECTICUT

